



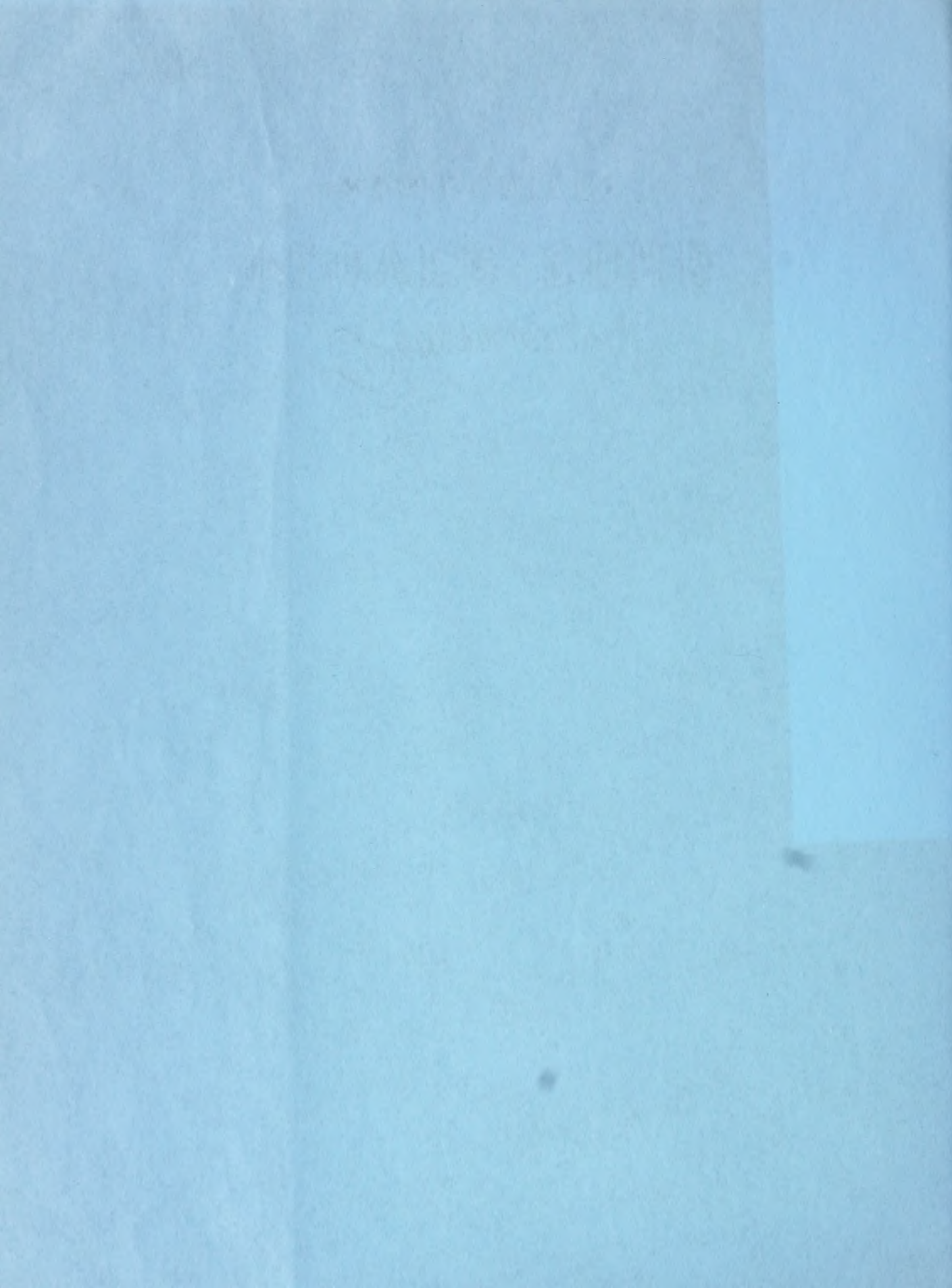


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PUBLICATIONS OF THE  
DIVISION OF WATER RESOURCES

EDWARD HYATT, State Engineer

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BULLETIN No. 40-A

SOUTH COASTAL BASIN INVESTIGATION

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DETAILED ANALYSES

showing

QUALITY OF IRRIGATION WATERS

(Supplemental to Bulletin No. 40)

1933



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### ACKNOWLEDGMENT

Acknowledgment previously made in Bulletin No. 40 of those extending their valuable assistance and cooperation in making it possible to assemble these basic data is reiterated.

Acknowledgment is made to the laboratory which performed the original analyses by reference to a footnote on the last page of each table.

## ORGANIZATION

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### STATE DEPARTMENT OF PUBLIC WORKS DIVISION OF WATER RESOURCES

EARL LEE KELLY-----*Director of Public Works*  
EDWARD HYATT-----*State Engineer*

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The South Coastal Basin Investigation,  
of which this bulletin is a report on one feature,  
was conducted under the supervision of

HAROLD CONKLING  
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and under the immediate charge of

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Collection of samples, assembly of analyses by other laboratories,  
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making the map for this report was done by

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Original analyses for this report were made in  
Rubidoux Laboratory of the U. S. Bureau of Plant Industry  
by

JOSEPH M. SANCHIS  
*Junior Sanitary Engineer*

## ORGANIZATION

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UNITED STATES DEPARTMENT OF AGRICULTURE  
BUREAU OF PLANT INDUSTRY  
Cooperating in  
South Coastal Basin Investigation

WILLIAM A. TAYLOR-----*Chief of Bureau*

---

Supervision of technical features of the work was by

CARL S. SCOFIELD  
*Principal Agriculturist in Charge*  
*Division of Western Irrigation Agriculture*

## FOREWORD

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This report supplements Bulletin No. 40, "Quality of Irrigation Waters in South Coastal Basin," 1933, a report of cooperative work by the Bureau of Plant Industry, United States Department of Agriculture, and the Division of Water Resources, State Department of Public Works.

Herewith are presented the analytical data which formed the basis upon which Bulletin No. 40 was written. These tables, 26 in number, comprise the data referred to on page 17 of the report as being available in the files of the Division of Water Resources.

## INTRODUCTION

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The analytical data in the following tables comprise the total of that assembled for and used as a basis for Bulletin No. 40. A small amount of additional data has been assembled by the Division of Water Resources since April, 1933, but is not included in this report. Certain cooperators have continued to make observations of water quality, particularly in Los Angeles and Orange counties, which will in future serve to maintain the continuity of the present available data.

The area which the data cover is referred to as the South Coastal Basin and includes the drainage basins of the Los Angeles, San Gabriel and Santa Ana rivers, and of the creeks that discharge directly into the Pacific Ocean in the vicinity of Santa Monica, as well as those so discharging in the vicinity of Newport Bay.

The locations of all sampling points for which water analysis data are available are shown on a map of the South Coastal Basin to be found in pocket.

The numbers used for the designation of wells, for which water samples have been analyzed, are the same for identical wells as those used in Bulletin No. 39 and supplements thereto, by Division of Water Resources, State Department of Public Works. Sources other than wells have been numbered according to a system described in the same bulletin as "Location Numbers." A descriptive letter preceding the location number has been used to classify the source of the water sample. The letter "S" designates a source where water appears on the surface of the ground as a stream, spring or lake, open or tile drain, or imported water. The letter "R" denotes sewage water, and "W" denotes industrial waste water. The letter following the number differentiates similar sources in the same quadrangle. Solid or open circles are used for wells and triangles for all other sources.

To facilitate tabulating the analytical data, the South Coastal Basin was divided into thirteen areas for the most part delimited by natural boundaries and named arbitrarily so that the name generally describes the geographical location of the area.

## METHODS OF ANALYSIS AND INTERPRETATION

### Methods of Analysis.

The so-called complete analyses, made in the laboratory of the Division of Water Resources by Mr. J. M. Sanchis, included the following determinations: (1) Specific electrical conductance; (2) Hydrogen ion concentration; (3) Carbonate and bicarbonate; (4) Chloride; (5) Sulphate; (6) Nitrate; (7) Calcium; (8) Magnesium; (9) Sodium. In addition to these the boron was determined in the Rubidoux Laboratory of the Division of Western Irrigation Agriculture by Messrs. L. V. Wilcox and John T. Hatcher. The so-called partial analyses included only (1) Specific electrical conductance; (2) Boron; (3) Carbonate and bicarbonate; (4) Chloride.

(1) Specific electrical conductance was determined by the conventional set-up with a Wheatstone bridge.<sup>1</sup> The results, expressed as reciprocal ohms at 25° centigrade ( $K \times 10^5$  @ 25°C), are taken to represent a measurement of the total dissolved electrolytes in the water and are used in lieu of the determination of total dissolved solids.

(2) Hydrogen ion concentration was determined by the use of color indicators and an apparatus in which colored glass discs were used as standards. These colorimetric methods were checked occasionally by the electrometric method.

(3) The carbonate and bicarbonate ions were determined by titration with 0.05 Normal sulphuric acid, using phenolphthalein indicator for the carbonate and methyl orange for bicarbonate.

(4) Chloride was determined by adding potassium chromate indicator to the solution resulting from the carbonate-bicarbonate titration and then titrating with 0.05 Normal silver-nitrate solution.

(5) Sulphate was determined gravimetrically as barium sulphate by the Official Method except that silica was not removed prior to the precipitation of the barium sulphate. The relatively small quantity of silica occurring in these waters does not appear to interfere so long as the volume of the aliquot is not concentrated below 75 to 100 cc.

(6) Nitrate was determined by the use of phenoldisulfonic acid according to the Official Method except that the color comparison was made with an apparatus in which colored glass discs were used as standards, these discs having been calibrated with solutions of known nitrate concentration.

(7) Calcium was determined by precipitation as the oxalate, filtered, redissolved in hot dilute sulphuric acid, and titrated with standard permanganate solution substantially according to the Official Method.

<sup>1</sup> Scofield, C. S. Measuring the Salinity of Irrigation Waters and of Soil Solutions with the Wheatstone Bridge. U. S. Dept. Agri. Circ. 232, July, 1932.

(8) Magnesium was determined by precipitation as magnesium ammonium phosphate, which was ignited and weighed as the pyrophosphate.

(9) Sodium was determined by precipitation as sodium-uranylzinc-acetate, and after washing and drying was weighed as such.

(10) Boron was determined by the electrometric method of titration.<sup>1</sup>

#### Interpretation of Analyses.

*Specific Electrical Conductance:* This is a measurement of a definite physical property of a water sample, and is regarded by the writer as quite as significant a measure of the total dissolved solids as the results of a gravimetric determination in which salinity is expressed as parts per million. The conductance gives no clue as to the character of the salts in solution, it implies only the aggregate quantity of dissolved electrolytes. In respect to irrigation waters in the South Coastal Basin, if the boron concentration is below the limit of tolerance, and the sodium percentage is less than 60, it is believed that when the conductance is less than 100 the water is safe for general use. When the conductance is more than 100 but less than 300 it may be safe to use the water where drainage conditions are good or where the more tolerant crops are grown, but as the conductance approaches the upper limit of this range consideration should be given to the conditions of use and to the character of the salts involved. Waters having conductances above 300 are generally to be regarded as unsuited to irrigation use, although it should be understood that subsoil waters of that degree of salinity do not imply root zone conditions intolerable to many crop plants. In general terms it may be said that the soil solution or subsoil water is usually 5 to 8 times as concentrated as the irrigation water used.

*Boron:* The concentration of this constituent is expressed as parts per million of elemental boron in the solution. Experience in the South Coastal Basin has shown that under existing climatic conditions the critical concentration for this constituent in irrigation water lies between 0.5 and 1.0 ppm where the water is to be used for the more sensitive crop plants such as lemons and walnuts.

*Per Cent Sodium:* This expression as used in respect to the quality of irrigation water takes into account the ratio of the sodium content to the sum of the calcium, magnesium, and sodium, the concentrations of all 3 constituents being expressed in terms of milligram equivalents per liter. In other words the per cent sodium is obtained by dividing the sum of the milligram equivalents of calcium, magnesium, and sodium into the figure for sodium and pointing off 2 places to the left,

$$\left( \frac{\text{Na} \times 100}{\text{Ca} + \text{Mg} + \text{Na}} \right).$$
 The significance of this characteristic of the salt complex in irrigation water lies in the results of reactions of base exchange on the

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<sup>1</sup> Wilcox, L. V. Electrometric Titration of Boric Acid. Ind. and Eng. Chem. Analytical Edition, Vol. 4, p. 38, 1932.

physical properties of the soil. If the dissolved salts are preponderantly those of calcium and magnesium; i.e., if the per cent sodium is low, then the reactions of base exchange are in the direction of maintaining good tilth and good permeability in the soil. On the other hand if the percentage of sodium is high the consequent reactions of base exchange in the soil tend in the direction of the replacement of calcium and magnesium by sodium in the exchange complex with the result that the soil becomes deflocculated and impermeable to water. Experience indicates that if the sodium percentage is below 50 there is little danger of impairing seriously the physical condition of the soil. If it is above 60, such danger exists. The critical ratio is believed to lie between 50 and 60.

*Carbonate and Bicarbonate:* These two constituents are closely related and their relative concentrations may change with changes in the content of carbon dioxide in the water. In the detailed tables on which this report is based the concentrations of both constituents, where both occur, have been reported in terms of bicarbonate. In the discussion of water conditions in the several areas the concentrations of bicarbonate are not mentioned because it is thought that this constituent has less agricultural significance than those that are mentioned. Occasionally waters are found in which the carbonates and bicarbonates comprise almost the whole of the anion complex. If in such waters the percentage of sodium is low the water is probably safe for irrigation use, but if the percentage of sodium is high the water may be alkaline in reaction and will be potentially harmful to the physical condition of the soil. The quantity of bicarbonate in well waters is the least variable of any constituent determined in these analyses.

*Chloride:* This constituent is the one most easily and most frequently determined in water analysis. It is important because it is one to which many crops are sensitive. As a result of long experience, it has come to be accepted in the South Coastal Basin that in respect to chlorides, irrigation water is safe to use if it contains less than 142 ppm (4 milligram equivalents). As the chloride concentration approaches 355 ppm (10 milligram equivalents) water becomes increasingly unsafe for irrigation use and above that limit its use is hazardous and should be safeguarded by good drainage and copious applications to keep the root zone leached.

*Sulphate:* Information as to the limits of tolerance of this constituent of irrigation water is much less precise than that in respect to chloride. It is recognized that if sulphate is associated with an abundance of calcium it is not likely to become injurious to crops because the limit of solubility of calcium sulphate (2000 ppm) is below the limit of crop tolerance. On the other hand the sulphates of magnesium and sodium are highly soluble and in the absence of sufficient calcium to precipitate sulphate from the soil solution, this constituent might reach concentrations injurious to crop plants. For convenience

in classifying waters, concentration limits have been adopted for sulphate analogous to those used for chloride (in terms of milligram equivalents), i.e., those containing less than 4 milligram equivalents, 192 ppm, are classed as safe for irrigation use so far as this constituent is concerned, while those ranging up to 10 milligram equivalents, 480 ppm, are placed in the doubtful class, with those ranging above 480 ppm as possibly harmful. It must be emphasized that these limits are somewhat arbitrary and that the quality of water in respect to its sulphate content should be considered in conjunction with its calcium content or at least in conjunction with its percentage of sodium. If sulphate concentration and per cent sodium are high the water may be unsatisfactory for irrigation use.

*Nitrate*: This constituent rarely occurs in irrigation waters in harmful concentrations. It is reported for two reasons. Its occurrence has a certain geographic or geological significance. Also, it is sometimes used as an indication of the contamination of water supplies as by sewage effluents. It is to be noted that nitrate occurs in relatively high concentrations in some of the underground waters of the South Coastal Basin. It is the writer's view that these high concentrations should not be generally interpreted as evidence of sewage contamination, or as the result of the accumulation of fertilizer residues from cultivated lands. Both these sources may have contributed to some extent to the present condition but it is highly probable that they are both subordinate to other and natural conditions not yet fully understood.

*Calcium, Magnesium, and Sodium*: In the detailed tables of analytical data on which this report is based these three constituents have been recorded separately. In the discussion of the irrigation waters in this report they have been taken together as the components of the ratio designated "per cent sodium." The separate determination and reporting of these three constituents affords the basis for a criterion that is useful in determining the sources of salinity as discussed later in the case of suspected sea-water intrusion along the ocean front of the Coastal Plain.



TABLE 1. SURFACE WATERS IN SAN FERNANDO VALLEY

Number	Location and description	Location number	Time of day	Discharge in second-feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>4</sup> at 25°C)	Boron ppm	Per cent sodium Na+Mg + Na	Constituents (parts per million)						
										Bicarbonate (HCO <sub>3</sub> )	Chloride (Cl)	Sulfate (SO <sub>4</sub> )	Nitrate (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
S3754-F-6	Los Angeles River, S. of Van Nuys. Sampled at Los Angeles County Flood Control Gaging Station F-C-5, on downstream side of Van Nuys Blvd. bridge. Water rises (during summer) within one mile upstream from sampling point. Drainage area 157 square miles. Discharge measurements by L. A. C. F. C. D. U. S. D. A. analysis on 12/16/31 is duplicate of D. W. R. Lab. No. 602 and is from same sample.	S3754		0.22	193	8/1/31	165.3		28	351	52	555	18	167	69	127
				0.11	291	9/11/31	171	0.45	28	357	48	506	18	159	65	118
				0.08	455	10/16/31	164	0.42	29	363	59	558	19	172	68	132
				49.61	594	12/14/31	15.9	0.17	34	58	7	21	7	13	6	14
				1.15	602	12/16/31	57.3	0.24	29	143	18	137	8	53	16	38
				1.15	(e)	12/16/31	55.6	0.27	30	140	18	137	9	53	17	340
				35	(e)	1/31/32				64	12	105	1			
				200	(e)	2/1/32				75	22	65	1			
				5.30 a.m.	(e)	2/8/32				85	14	50	2			
				170	(e)	2/8/32				53	12	30	1			
S3835-F-7	Los Angeles River, S. of North Hollywood. Sampled at Los Angeles County Flood Control Gaging Station F-C-124, on downstream side of Vineland Ave. bridge. Use: Sampled before and after storm. Drainage area 400+ square miles. Discharge measurements by L. A. C. F. C. D.	S3835		3.10	728	2/15/32	104	0.25	29	204	39	328	8	106	34	76
				250	(e)	2/16/32				75	30	150	1			
				1.08	807	3/11/32	152	0.34		342	53					
				1.16	910	4/15/32	135	0.30	24	369	45	410	8	141	63	88
				0.34	980	5/19/32	162	0.28	27	354	51	558	20	168	71	123
				0.29	1048	6/15/32	158	0.35		363	50					
				0.21	1159	7/19/32	182	0.35		375	50					
				0.21	1409	9/16/32	165	0.50	28	384	48	543	11	173	68	129
				0.2	1472	10/10/32	164	0.33		381	46					
				0.3	1542	11/19/32	167	0.39		387	48					
S3855-F-8	Los Angeles River, One mile E. of Universal City. Sampled under bridge on Hollywood Way. Dias Ave. power house discharges Los Angeles Aqueduct water into river above sampling point.	S3855			1578	12/10/32	140	0.27	24	372	41	389	12	150	65	94
				75	(e)	1/31/32				86	15	165	1			
				400	(e)	2/1/32				75	18	85	1			
				200	(e)	2/8/32				117	20	154	2			
				2,500	(e)	2/8/32				64	12					
				700	(e)	2/9/32				64	18	Tr.				
				300	(e)	2/16/32				86	22	107	Tr.			
					194	8/1/31	59		44	204	28	86	1	44	16	63
				293	9/11/31	130	0.54	40	220	9	470	Tr.	103	34	124	
				456	10/16/31	119	0.34	32	275	51	351	6	117	43	100	
S6006-B-6	Pacoima Creek, NE. of San Fernando. Sampled at U. S. G. S. gaging station in SE 1/4 of NE 1/4, Sec. 24, T. 3N., R. 15W., S. B. & M., 600 feet above mouth of Canyon, 2,000 feet below Pacoima Dam, 3.0 miles from Foothill Blvd. Flow regulated by Los Angeles County Flood Control District dam above station. Drainage area above dam 27.8 square miles. Discharge measured by U. S. G. S.	S6006			727	2/15/32	52.3	0.34		188	21	322	6	104	34	88
					808	3/11/32	130	0.41		302	55	423	7	124	45	117
					911	4/15/32	131	0.37	34	271	57					
					981	5/19/32	130	0.32		259	55					
					1049	6/15/32	127	0.33		235	55					
					1158	7/19/32	135	0.37		274	59					
					1406	9/16/32	62.9	0.56	40	201	28	106	1	52	16	60
					1473	10/10/32	59.7	0.58		186	27					
					1543	11/19/32	127	0.35		286	50					
					1579	12/10/32	121	0.32	30	290	48	325	11	125	40	94
S5110-B-10	Big Tujunga Creek, NE. of Sunland. Sampled just below Dam No. 1 of the Los Angeles County Flood Control District. Use: Irrigation. Small flow in creek. Gage on flume read 0.35 feet. Discharge estimated by L. A. C. F. C. D.	S5110			112	7/2/31	58.7		17	229	10	107	1	71	24	27
				2	211	8/12/31	56.2		21	241	9	108	0	65	22	31
				2	290	9/11/31	64.7	0.31	14	222	9	116	1	64	28	21
				1.5	434	10/15/31	65.8	0.10		281	9					
				0.3	653	1/19/32	60.4	0.13		250	11					
				36	726	2/15/32	33.3	0.06	17	146	4	43	2	40	13	14
				22	817	3/15/32	34.7	0.04		159	7					
				17	909	4/15/32	36.6	0.02	14	162	6	43	1	46	14	13
				15	988	5/15/32	37.7	0.06		168	6					
				17	1094	6/15/32	43.2	0.07	11	192	7	54	1	53	16	12
	8	1160	7/15/32	44.6	0.07		198	7								
	5	1276	8/15/32	43.0	0.05		195	9								
	7	1403	9/17/32	52.0	0.06	15	241	9	67	1	68	19	19			
	3	1494	10/15/32	56.7	0.12		268	6								
		111	7/2/31	36.8		32	204	6	15	0	38	12	32			



TABLE 1. SURFACE WATERS IN SAN FERNANDO VALLEY--Continued

Number	Location and description	Location number	Time of day	Discharge in second-foot	Laboratory number	Date	Specific electrical conductance (Kx 10 <sup>3</sup> at 25°C)	Boron ppm	Per cent sodium Na+100 Ca+Mg + Na	(Constituents (parts per million))							
										Bicarbonate (HCO <sub>3</sub> )	Chloride (Cl)	Sulphate (SO <sub>4</sub> )	Nitrate (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	
S5030-B-9	Big Tujunga Creek, NE. of Sunland. Sampled at U. S. G. S. water stage recorder near center of Sec. 32, T. 3N., R. 13W., S. B. & M. (unsurveyed), 4.2 miles from Foothill Blvd. just above where road crosses creek at west boundary of State Game Refuge. Drainage area 106 square miles. Discharge measurements by U. S. G. S.	S5030	-----	0.2 0.1 0.2 2.6 6 165 14 20 17 7 16 6 6 4 4 3	110 292 435 599 651 734 816 915 986 1092 1277 1404 1495 1547 1616	7/ 2/31 9/11/31 10/15/31 12/14/31 1/19/32 2/16/32 3/15/32 4/15/32 5/15/32 6/15/32 7/15/32 8/15/32 9/16/32 10/15/32 11/15/32 12/15/32	54.1 66.9 62.0 53.7 50.6 24.2 42.2 36.2 35.3 37.7 39.3 41.9 43.8 45.4 45.8 45.4	----- 0.57 0.47 0.51 0.52 0.06 0.28 0.20 0.22 0.13 0.12 0.18 0.21 0.22 0.20 0.27	30 27 27 27 ----- ----- 26 ----- ----- ----- ----- 25 ----- ----- -----	268 305 302 259 253 122 217 186 180 189 207 210 229 235 234 235	11 9 12 13 11 4 7 6 7 7 9 7 7 7 9	60 68 ----- 65 ----- ----- 30 ----- ----- ----- ----- 28 27 ----- -----	0 ----- ----- 0 ----- ----- Tr. ----- ----- ----- Tr. 0 ----- -----	54 0 65 ----- 56 ----- 35 ----- ----- 46 47 ----- -----	21 23 23 19 ----- ----- 13 ----- ----- 15 17 ----- -----	43 43 ----- 38 ----- ----- 24 ----- ----- 28 29 ----- -----	
S4913-C-7	Big Tujunga Wash, W. of Sunland. Sampled at Mulholland St. (Stonehurst Ave.) Bridge at Los Angeles County Flood Control District gauging station, F. C. 20. (See Sampled before and after storm. Discharge measurements by L. A. C. F. C. D.)	S4913	6:45 a.m. 4:10 p.m. 3:30 p.m. 8:25 p.m. 5:15 p.m.	90 600 800 500 75	(c) (c) (c) (c) (c)	2/ 8/32 2/ 8/32 2/ 9/32 2/16/32 2/22/32	----- ----- ----- ----- -----	----- ----- ----- ----- -----	----- ----- ----- ----- -----	75 64 96 107 139	22 12 12 8 12	45 35 48 Tr. Tr.	1 1 1 1 2	----- ----- ----- ----- -----	----- ----- ----- ----- -----	----- ----- ----- ----- -----	----- ----- ----- ----- -----
S3973 D-10	Vedugo Canyon Creek, NE. of Glendale. Sampled under bridge at La Canada Blvd. crossing. Water rises below Colina Dr. Use: Diverted by city of Glendale to reservoir for municipal purposes.	S3973	-----	-----	346 433 600 725 809 1050 1544 1580	9/ 23/31 10/15/31 12/16/31 2/15/32 3/14/32 6/13/32 11/19/32 12/10/32	36.8 36.8 40.9 59.1 60.6 49.4 48.6 47.2	0.09 0.01 0.06 0.05 0.08 0.05 0.10 0.10	22 21 ----- ----- ----- 19 ----- 18	146 143 149 146 143 137 131 134	12 11 13 16 20 20 11 9	45 68 ----- ----- ----- 92 108	2 ----- 1 ----- ----- 2 ----- 1	34 40 ----- ----- ----- 50 45	17 17 ----- ----- ----- 21 20 ----- -----	27 20 ----- ----- ----- 23 21 ----- -----	
S4801 C-5	Bull Canyon Creek, W. of San Fernando. 1,200 feet N. of Rinaldi St., 800 feet W. of Havenhurst Ave. Sampled 100 feet above Sulphur Spring. Use: Irrigation.	S4801	-----	-----	1106	6/ 23/32	120	0.52	32	381	73	211	18	110	40	93	
S4801A-C-5	Sulphur Spring, W. of San Fernando. Spring on W. Bank of Bull Canyon Creek, 1,200 feet N. of Rinaldi St., 700 feet W. of Havenhurst Ave. Continuous flow, mixes with Bull Canyon water. Water has strong odor of H <sub>2</sub> S.	S4801A	-----	-----	(d) 1105	3/ 8/28 6/23/32	68.6	0.20	65 31	365 299	56 32	354 72	Tr. 0	77 68	18 21	6232 53	
S4801B-C-5	J. H. Elerath. Tile drainage outlet, W. of San Fernando. Sample from outlet at lower end of Row 8 of owner's home ranch on N. bank of Bull Canyon Creek, 500 feet N. of Rinaldi St., 650 feet E. of Havenhurst Ave. Use: Not used. Continuous flow throughout year.	S4801B	-----	-----	(d) 1107	3/ 8/28 6/23/32	55.6	0.30	42 38	437 381	46 66	277 43	4 1	80 74	22 26	6104 83	
S4811-C-5	J. H. Elerath. W. of San Fernando. Sampled at small lake 1,000 feet N. of Rinaldi St., 1,200 feet E. of Havenhurst Ave. Use: Irrigates 15-20 acres. Continuous flow throughout year. Water flows in culvert at end 1,200 feet above lake	S4811	-----	-----	(d) 1108	2/21/30 6/23/32	47.9	0.18	60 43	583 156	198 60	385 5	1 0	122 37	36 11	6312 45	

<sup>a</sup> Includes small equivalent quantity of Carbonate ( $\text{CO}_3$ ).

<sup>a</sup> Includes small equivalent quantity of Carbonate ( $\text{CO}_3$ ).

milligram equivalents and calculated to equivalent quantity of Information from W. H. Wood and F. B. Laver.

Information from W. H. Wood and F. B. Lavery.  
Analysis by Charles D. Samuels, Ph.D., Covina, California.

<sup>1</sup> Analysis by Charles D. Samuels, Ph.D., Covina, California.  
<sup>2</sup> Analysis by United States Department of Agriculture, Ruben

Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.



TABLE 2. IMPORTED WATERS SAN FERNANDO VALLEY

S5903-B-5. LOS ANGELES AQUEDUCT

Owner—City of Los Angeles.

**Location and description**—Owens Valley water from aqueduct at San Fernando Power House above upper San Fernando Reservoir, N.W. of San Fernando.

**Ground elevation** 1,265, from 1:8 G. S. topog., by D. W. R.

**Use**—Municipal and irrigation.

**Source of information**—Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California. Discharge data from City of Los Angeles, Department of Water and Power.

Location number - S-5708

Date	Dis-charge in second-foot	Specific elec- tricity con- tainment (Kilowatt at 25° C)	Boron ppm	Percent Sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
					Bicar- bonate radicle (HCO <sub>3</sub> )	Chlo- ride radicle (Cl)	Sul- phate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Mag- nesium (Mg)	Sodium (Na)
7/6/28--	344	39.6	0.73	62	184	21	29	---	32	(9)	560
7/13/28--	303	37.2	0.75	62	177	21	26	---	29	(9)	535
7/20/28--	361	37.3	0.65	59	165	20	32	---	34	(7)	556
7/27/28--	355	35.9	0.67	62	158	18	28	---	28	(9)	522
8/3/28--	353	33.4	0.67	59	160	19	26	---	30	(9)	530
8/10/28--	356	33.7	0.70	63	160	19	31	---	28	(9)	555
8/15/28--	353	36.4	0.58	63	171	24	32	---	30	(7)	560
8/24/28--	365	34.4	0.55	59	146	20	39	---	31	(6)	561
8/31/28--	353	34.6	0.73	61	146	20	41	---	30	(6)	563
9/7/28--	256	40.7	0.62	61	140	18	37	---	28	(6)	550
9/11/28--	256	37.5	0.55	59	134	21	42	---	30	(6)	552
9/18/28--	277	41.7	0.59	63	146	16	36	---	27	(6)	560
9/25/28--	256	38.6	0.54	64	159	19	43	---	29	(6)	562
10/2/28--	212	42.7	0.67	62	159	23	57	---	33	(6)	562
10/9/28--	272	41.1	0.53	58	171	21	32	---	34	(6)	564
10/16/28--	205	35.9	0.92	60	155	25	44	---	33	(6)	556
10/23/28--	190	38.8	0.54	56	146	23	40	---	35	(6)	551
10/30/28--	208	40.1	0.66	62	155	21	44	---	31	(7)	558
11/6/28--	217	37.5	0.59	66	155	19	45	---	27	(6)	562
11/13/28--	199	39.5	0.68	62	155	19	36	---	29	(6)	555
11/20/28--	211	37.8	0.60	71	152	21	36	---	22	(6)	563
11/27/28--	239	37.5	0.60	65	149	23	38	---	27	(6)	558
12/4/28--	267	36.6	0.61	67	152	21	70	---	30	(7)	570
12/11/28--	297	37.6	0.80	64	155	21	40	---	29	(6)	558
12/18/28--	264	35.9	0.76	59	152	23	35	---	32	(6)	552
12/26/28--	194	37.7	0.62	57	152	23	43	---	28	(4)	552
1/2/29--	192	37.5	0.73	51	137	21	35	---	28	(4)	541
1/9/29--	244	38.4	0.57	47	156	23	29	---	27	(8)	542
1/14/29--	111	39.1	0.65	47	159	21	32	---	27	(8)	547
1/22/29--	117	42.5	0.68	52	152	21	33	---	29	(5)	545
1/29/29--	119	41.9	0.58	50	159	25	40	---	33	(5)	547
2/4/29--	181	40.5	0.67	50	152	21	29	---	29	(5)	539
2/12/29--	200	40.6	0.66	42	162	25	34	---	29	(11)	545
2/18/29--	108	38.2	0.76	52	152	21	30	---	27	(5)	549
2/26/29--	167	39.8	0.60	55	159	21	36	---	26	(6)	552
3/5/29--	228	41.3	0.65	57	162	23	32	---	25	(6)	547
3/12/29--	261	41.6	0.79	50	159	21	41	---	27	(8)	547
3/18/29--	100	41.6	0.65	52	162	22	32	---	29	(5)	547
3/26/29--	172	41.6	0.75	55	157	22	39	---	25	(7)	540
4	136	38.2	0.64	51	158	22	38	---	26	(7)	545
4/9/29--	242	42.2	0.72	43	160	22	31	---	27	(11)	539
4/16/29--	172	41.6	0.77	55	169	26	38	---	26	(7)	553
4/23/29--	181	39.8	0.64	52	171	25	32	---	28	(7)	560
4/30/29--	194	41.3	0.86	55	168	26	33	---	28	(6)	553
5/7/29--	339	41.8	0.88	58	177	28	34	---	28	(6)	558
5/21/29--	314	44.1	0.73	51	178	27	31	---	31	(7)	550
5/28/29--	333	40.4	0.80	52	178	32	25	---	32	(7)	552
6/4/29--	333	45.4	0.73	60	174	28	42	---	32	(6)	562
6/11/29--	333	44.9	0.87	58	173	28	38	---	28	(6)	558
6/18/29--	331	44.9	0.81	57	170	27	37	---	28	(6)	559
6/25/29--	319	43.9	0.73	53	179	26	34	---	29	(7)	553
7/2/29--	333	43.6	0.80	54	176	26	33	---	28	(7)	553
7/9/29--	353	43.4	0.50	57	183	28	33	---	27	(7)	558
7/15/29--	244	37.9	0.70	48	170	26	29	---	28	(9)	545
7/23/29--	339	43.7	0.63	61	177	32	80	---	36	(4)	577
7/30/29--	353	40.5	0.56	49	168	23	36	---	27	(9)	546
8/6/29--	310	40.2	0.64	54	166	23	33	---	27	(7)	547
8/13/29--	360	41.1	0.71	48	171	28	34	---	27	(11)	551
8/20/29--	355	40.7	0.63	51	164	22	31	---	27	(8)	546
8/27/29--	327	39.3	0.65	49	161	22	33	---	27	(8)	545
9/3/29--	317	39.7	0.63	48	159	23	44	---	29	(9)	546
9/10/29--	358	39.5	0.60	40	158	21	41	---	30	(8)	545
9/17/29--	342	39.6	0.65	58	183	32	40	---	33	(5)	563

TABLE 2. IMPORTED WATERS SAN FERNANDO VALLEY Continued

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Owner—City of Los Angeles.

**Location and description**—Owens Valley water from aqueduct at San Fernando Power House above upper San Fernando Reservoir, N.W. of San Fernando.

**Ground elevation** 1,265, from 1:8 G. S. topog., by D. W. R.

**Use**—Municipal and irrigation.

**Source of information**—Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California. Discharge data from City of Los Angeles, Department of Water and Power.

Location number - S-5708

225	228	231	234	237	240	243	246	249	252	255	258	261	264	267	270	273	276	279	282	285	288	291	294	297	300	303	306	309	312	315	318	321	324	327	330	333	336	339	342	345	348	351	354	357	360	363	366	369	372	375	378	381	384	387	390	393	396	399	402	405	408	411	414	417	420	423	426	429	432	435	438	441	444	447	450	453	456	459	462	465	468	471	474	477	480	483	486	489	492	495	498	501	504	507	510	513	516	519	522	525	528	531	534	537	540	543	546	549	552	555	558	561	564	567	570	573	576	579	582	585	588	591	594	597	600	603	606	609	612	615	618	621	624	627	630	633	636	639	642	645	648	651	654	657	660	663	666	669	672	675	678	681	684	687	690	693	696	699	702	705	708	711	714	717	720	723	726	729	732	735	738	741	744	747	750	753	756	759	762	765	768	771	774	777	780	783	786	789	792	795	798	801	804	807	810	813	816	819	822	825	828	831	834	837	840	843	846	849	852	855	858	861	864	867	870	873	876	879	882	885	888	891	894	897	900	903	906	909	912	915	918	921	924	927	930	933	936	939	942	945	948	951	954	957	960	963	966	969	972	975	978	981	984	987	990	993	996	999	1002	1005	1008	1011	1014	1017	1020	1023	1026	1029	1032	1035	1038	1041	1044	1047	1050	1053	1056	1059	1062	1065	1068	1071	1074	1077	1080	1083	1086	1089	1092	1095	1098	1101	1104	1107	1110	1113	1116	1119	1122	1125	1128	1131	1134	1137	1140	1143	1146	1149	1152	1155	1158	1161	1164	1167	1170	1173	1176	1179	1182	1185	1188	1191	1194	1197	1200	1203	1206	1209	1212	1215	1218	1221	1224	1227	1230	1233	1236	1239	1242	1245	1248	1251	1254	1257	1260	1263	1266	1269	1272	1275	1278	1281	1284	1287	1290	1293	1296	1299	1302	1305	1308	1311	1314	1317	1320	1323	1326	1329	1332	1335	1338	1341	1344	1347	1350	1353	1356	1359	1362	1365	1368	1371	1374	1377	1380	1383	1386	1389	1392	1395	1398	1401	1404	1407	1410	1413	1416	1419	1422	1425	1428	1431	1434	1437	1440	1443	1446	1449	1452	1455	1458	1461	1464	1467	1470	1473	1476	1479	1482	1485	1488	1491	1494	1497	1500	1503	1506	1509	1512	1515	1518	1521	1524	1527	1530	1533	1536	1539	1542	1545	1548	1551	1554	1557	1560	1563	1566	1569	1572	1575	1578	1581	1584	1587	1590	1593	1596	1599	1602	1605	1608	1611	1614	1617	1620	1623	1626	1629	1632	1635	1638	1641	1644	1647	1650	1653	1656	1659	1662	1665	1668	1671	1674	1677	1680	1683	1686	1689	1692	1695	1698	1701	1704	1707	1710	1713	1716	1719	1722	1725	1728	1731	1734	1737	1740	1743	1746	1749	1752	1755	1758	1761	1764	1767	1770	1773	1776	1779	1782	1785	1788	1791	1794	1797	1800	1803	1806	1809	1812	1815	1818	1821	1824	1827	1830	1833	1836	1839	1842	1845	1848	1851	1854	1857	1860	1863	1866	1869	1872	1875	1878	1881	1884	1887	1890	1893	1896	1899	1902	1905	1908	1911	1914	1917	1920	1923	1926	1929	1932	1935	1938	1941	1944	1947	1950	1953	1956	1959	1962	1965	1968	1971	1974	1977	1980	1983	1986	1989	1992	1995	1998	2001	2004	2007	2010	2013	2016	2019	2022	2025	2028	2031	2034	2037	2040	2043	2046	2049	2052	2055	2058	2061	2064	2067	2070	2073	2076	2079	2082	2085	2088	2091	2094	2097	2100	2103	2106	2109	2112	2115	2118	2121	2124	2127	2130	2133	2136	2139	2142	2145	2148	2151	2154	2157	2160	2163	2166	2169	2172	2175	2178	2181	2184	2187	2190	2193	2196	2199	2202	2205	2208	2211	2214	2217	2220	2223	2226	2229	2232	2235	2238	2241	2244	2247	2250	2253	2256	2259	2262	2265	2268	2271	2274	2277	2280	2283	2286	2289	2292	2295	2298	2301	2304	2307	2310	2313	2316	2319	2322	2325	2328	2331	2334	2337	2340	2343	2346	2349	2352	2355	2358	2361	2364	2367	2370	2373	2376	2379	2382	2385	2388	2391	2394	2397	2400	2403	2406	2409	2412	2415	2418	2421	2424	2427	2430	2433	2436	2439	2442	2445	2448	2451	2454	2457	2460	2463	2466	2469	2472	2475	2478	2481	2484	2487	2490	2493	2496	2499	2502	2505	2508	2511	2514	2517	2520	2523	2526	2529	2532	2535	2538	2541	2544	2547	2550	2553	2556	2559	2562	2565	2568	2571	2574	2577	2580	2583	2586	2589	2592	2595	2598	2601	2604	2607	2610	2613	2616	2619	2622	2625	2628	2631	2634	2637	2640	2643	2646	2649	2652	2655	2658	2661	2664	2667	2670	2673	2676	2679	2682	2685	2688	2691	2694	2697	2700	2703	2706	2709	2712	2715	2718	2721	2724	2727	2730	2733	2736	2739	2742	2745	2748	2751	2754	2757	2760	2763	2766	2769	2772	2775	2778	2781	2784	2787	2790	2793	2796	2799	2802	2805	2808	2811	2814	2817	2820	2823	2826	2829	2832	2835	2838	2841	2844	2847	2850	2853	2856	2859	2862	2865	2868	2871	2874	2877	2880	2883	2886	2889	2892	2895	2898	2901	2904	2907	2910	2913	2916	2919	2922	2925	2928	2931	2934	2937	2940	2943	2946	2949	2952	2955	2958	2961	2964	2967	2970	2973	2976	2979	2982	2985	2988	2991	2994	2997	3000	3003	3006	3009	3012	3015	3018	3021	3024	3027	3030	3033	3036	3039	3042	3045	3048	3051	3054	3057	3060	3063	3066	3069	3072	3075	3078	3081	3084	3087	3090	3093	3096	3099	3102	3105	3108	3111	3114	3117	3120	3123	3126	3129	3132	3135	3138	3141	3144	3147	3150	3153	3156	3159	3162	3165	3168	3171	3174	3177	3180	3183	3186	3189	3192	3195	3198	3201	3204	3207	3210	3213	3216	3219	3222	3225	3228	3231	3234	3237	3240	3243	3246	3249	3252	3255	3258	3261	3264	3267	3270	3273	3276	3279	3282	3285	3288	3291	3294	3297	3300	3303	3306	3309	3312	3315	3318	3321	3324	3327	3330	3333	3336	3339	3342	3345	3348	3351	3354	3357	3360	3363	3366	3369	3372	3375	3378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TABLE 2. IMPORTED WATERS. SAN FERNANDO VALLEY. Continued

Date	Dis-charge in second- feet	Specific elec- trical con- ductance (K x 10 <sup>3</sup> at 25° C.)	Boron ppm	Percent Sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
					Bicar- bonate radicle (HCO <sub>3</sub> )	Chlo- ride radicle (Cl)	Sul- phate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Mag- nesium (Mg)	Sodium (Na)
2/17/31	273	41.9	0.54	47	162	16	35		29	7	841
2/24/31	349	50.2	0.51	36	229	13	40		51	8	843
3/3/31	244	41.3	0.43	47	162	18	41		30	8	843
3/10/31	272	41.0	0.58	45	149	18	31		29	7	837
3/17/31	258	42.8	0.58	42	151	21	27		28	7	835
3/24/31	347	41.8	0.54	53	174	21	38		28	7	852
3/31/31	361	42.8	0.53	52	177	21	38		29	7	851
4/7/31	390	43.2	0.60	53	180	21	38		29	8	853
4/14/31	395	43.3	0.56	52	183	23	38		29	8	854
4/21/31	387	44.2	0.58	55	183	20	38		29	6	855
4/28/31	253	44.0	0.50	48	162	21	40		29	8	845
5/5/31	227	44.1	0.59	55	189	25	37		29	8	858
5/12/31	325	44.9	0.54	50	186	18	29		30	7	848
5/19/31	299	44.0	0.62	50	180	18	38		30	8	849
5/26/31	310	44.3	0.64	56	189	27	35		29	7	859
6/2/31	326	44.1	0.60	54	195	23	43		29	9	859
6/9/31	290	44.4	0.54	53	189	21	27		29	6	852
6/16/31	384	44.6	0.65	53	192	23	39	0	32	8	857
6/23/31	375	44.1	0.55	54	183	25	39	0	32	8	856
6/30/31	386	43.7	0.56	56	186	23	39	Tr	28	8	859
7/7/31	369	43.0	0.55	51	177	21	36	Tr	29	7	850
7/14/31	400	41.9	0.58	54	177	23	36	Tr	29	7	853
7/21/31	400	42.7	0.66	57	186	21	36	0	28	6	857
7/28/31	400	38.8	0.65	44	146	16	35	0	28	7	837
8/4/31	394	41.3	0.67	58	183	20	39	0	26	7	858
8/11/31	405	40.0	0.60	54	165	20	32	2	26	7	849
8/18/31	367	36.5	0.53	43	149	18	33	1	30	7	836
10/4/31	140	40.7	0.46		162	20					
11/3/31	316	40.2	0.52		174	18					
12/1/31	368	37.4	0.53		157	27					
12/29/31	392	39.3	0.53		151	29					
1/26/32	228	40.2	0.66		171	21					
2/25/32	300	44.6	0.81		186	27					
3/22/32	340	47.8	0.96		207	30					
4/18/32	240	51.9	1.24		229	41					
5/17/32	340	57.5	1.44		244	41					
6/14/32	400	51.3	1.25		223	23					
7/12/32	400	40.7	0.96		177	28					
7/21/32		35.9	0.74		162	26					
8/2/32	340	31.7	0.64		146	18					
9/7/32	400	29.6	0.60		140	16					
10/4/32	400	31.8	0.54		140	18					
11/1/32	220	34.2	0.56		149	24					

<sup>a</sup> Includes small equivalent quantity of Carbonate (CO<sub>3</sub>).<sup>b</sup> Alkaline bases estimated by difference between sum of acid radicals and sum of Calcium and Magnesium in milligram and calculated to equivalent quantity of Sodium.<sup>c</sup> Calcium and Magnesium determined together and calculated to equivalent quantity of Calcium.

TABLE 2. IMPORTED WATERS. SAN FERNANDO VALLEY. Continued

## S4821-C-5, LOWER SAN FERNANDO RESERVOIR

Owner—City of Los Angeles.

Location and description—Sampled at outlet from reservoir. W. of San Fernando.

Ground elevation—1025, from U.S.G.S. topog., by D. W. R.

Use—Municipal and irrigation.

Source of information—Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.

Location number—S4821.

Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25° C)	Boron ppm	Percent Sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
					Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
6426	7/21/32	50.8	1.15	-----	210	36	---	---	---	---	---

## S4877-D-2, CHATSWORTH RESERVOIR

Owner—City of Los Angeles.

Location and description—1.15 miles W. of Canoga Ave., 3100 feet N. of Roscoe St. Sampled at surface near east end of dam.

Ground elevation—870, from U.S.G.S. topog., by D. W. R.

Use—Municipal and irrigation. Storage for Los Angeles Aqueduct water.

Source of information—Analysis by D. W. R.

Location number—S4877.

Labora- tory number	Date	Specific elec- trical con- ductance (K x 10 <sup>3</sup> at 25° C)	Boron ppm	Percent Sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
					Bicar- bonate radicle (HCO <sub>3</sub> )	Chlo- ride radicle (Cl)	Sul- phate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Mag- nesium (Mg)	Sodium (Na)
1099	6/22/32	47.5	0.85	55	<sup>a</sup> 183	28	42	2	30	9	63

<sup>a</sup> Includes small equivalent quantity of Carbonate (CO<sub>3</sub>).



TABLE 3. WELLS IN SAN FERNANDO VALLEY

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca+Mg +Na	Constituents (parts per million)						
										Bicarbonate (HCO <sub>3</sub> )	Chloride (Cl)	Sulfate (SO <sub>4</sub> )	Nitrate (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
A-1-B-4	Cascade Ranch. W. of San Fernando; 1,400 feet NE. of Balboa Ave. on N. side of Bee Canyon Creek, W. of Upper San Fernando Reservoir. Use: Capped, not used. Casing: 16 inches. Gravel 150-172; 190-194. Sample 1 from first gravel stratum. Sample 2 from second gravel stratum before perforating first gravel. Sample 3 after well had been pumped, and is composite of two gravel strata.	5899	1,280	*500	e1 e2 e3	11/12/31 11/12/31 11/30/31	---	0.50 0.47 0.55	26 23 18	228 288 342	39 42 40	1000 810 687	---	218 208 200	97 88 88	4158 4119 4189
A-2-B-5	G. Henry Stetson (Sombro Ranch), Well 2. NW. of San Fernando; 100 feet NW. of Olden Ave., produced N., 1,000 feet NE. of Rensen St., 100 feet N. of A-2-B-5. Use: Irrigation and domestic. Casing: 18 inches.	5937	1,425	x300	354 1120	9/25/31 6/24/32	98.9 110	0.57 0.42	13 13	302 305	27 32	240 304	22 23	108 125	55 60	35 38
A-2a-B-5	G. Henry Stetson (Sombro Ranch), Well 1. NW. of San Fernando; on N. line of Olden Ave., produced, 940 feet NE. of Rensen St. Use: Irrigation and domestic. Casing: 14 inches.	5937A	1,422	x255	355 1121	9/25/31 6/24/32	82.0 89.6	0.46 0.26	---	225 238	34 32	186	27	97	45	29
A-3b-B-6	City of San Fernando, Well 4. San Fernando; 300 feet NW. of Hubbard Ave., 30 feet NE. of Mansfield St. Use: Municipal. Casing: 18 inches. Perforated 198 2/3"; 291 2/3"; 334-352; 361-387.	5969	1,244	*x481	( <sup>1</sup> ) 1122	7/17/31 6/23/32	---	0.07	25	210 204	15 12	530 28	6	46	12	25
A-3c-B-6	City of San Fernando, Well 2. San Fernando; 50 feet SE. of Sayre Ave., 50 feet SW. of Borden St. Use: Municipal. Gravel 100-130, 134 150, 156, 250.	5969A	1,221	*x250	( <sup>1</sup> )	7/17/31	---	---	---	210	19	517	---	---	---	---
A-4-B-6	Ford-Craig Ranch, Pit 1. N. of San Fernando; 50 feet NE. of Garrett St., 45 feet SE. of Hubbard Ave. Use: Irrigation. Interconnected to Pit 2.	5988	1,420	x400	1123	6/24/32	69.4	0.10	19	296	27	70	23	82	23	34
A-4g-B-6	Ford-Craig Ranch, NE. of San Fernando; 50 feet NW. of McClay St., 0.70 mile NE. of Foothill Blvd., W. of Pacoima Creek at foot of bluff. Use: Irrigation.	5989	1,250	-----	1408	9/16/32	43.9	0.07	15	*189	7	62	Tr.	50	17	16
A-10b-D-3	W. M. Beckstead, N. of Owensmouth; 50 feet S. of Roscoe Ave., 0.15 mile W. of De Soto Ave. Use: Irrigation. Gravel 25-48; 67-91; 283-299.	4708A	833	*x320	1100	6/22/32	99.2	0.23	23	308	55	176	18	112	33	58
A-11b-D-3	Wm. Mulholland, Well 1. SE. of Chatsworth; 0.5 mile N. of Nordhoff St., 20 feet W. of Corbin Ave., 20 feet S. of Plummer St. Use: Irrigation. Casing: 16 inches. Perforated 116-180; 233-245.	4733B	871	*x308	357 1101	9/25/31 6/22/32	99.2 98.7	0.30 0.27	18 16	284 278	32 28	242 228	27 31	127 129	34 33	47 39
A-13a-D-3	I. L. Hadley, SW. of N. Los Angeles; 25 feet S. of Strathern St., 375 feet E. of Corbin Ave. Use: Irrigation. Casing: 8-inch rotary hole, reamed to 30 inches. Gravel 90-106; 118-128; 142-148; 160, 166.	4738	782	*290	1102	6/22/32	118	0.31	18	287	39	350	11	154	41	55
A-17-C-4	Sunshine Ranch. W. of San Fernando; 2,900 feet N. of Rinaldi St., 200 feet W. of Zelman Ave., extended, in pump house 300 feet W. of creek. Use: Irrigation and domestic. Casing: 20 inches.	4771	1,236	x432	1103	6/23/32	97.6	0.34	13	339	82	123	0	154	16	31
A-20a-C-5	J. H. Eberath. W. of San Fernando; 700 feet E. of Havenhurst Ave., 1,800 feet N. of Rinaldi St. Use: Irrigation. Casing: 5" x 5" dug well. Pumps dry in four hours; refills in twenty-four hours.	4801	1,070	30	(s) 1104	3/8/28 6/23/32	---	1.77	34 44	68 46	607 1083	54 0	2 0	184 235	44 71	4152 315
A-24-B-5	R. Erratchue. NW. of San Fernando; 140 feet SW. of Monticello St., 0.3 mile SE. of Bledsoe Ave., 0.27 mile W. of San Fernando Road. Use: Irrigation and domestic. Casing: 10 inches. Perforated 60-131.	4830	1,155	*x131	1109	6/24/32	67.1	0.26	31	262	32	80	11	65	20	52
A-24a-C-5	General Petroleum Co. NW. of San Fernando; 600 feet SW. of San Fernando Road, 0.3 mile NW. of Hubbard Ave., 30 feet NW. of corrugated iron building. Use: Industrial. Casing: 12 inches. Gravel 122-133.	4840	1,120	*x190	(b) (c) (d) 1111	5/7/13 5/19/13 12/12/24 6/24/32	---	---	22 34 33 24	---	22 21 6 11	56 34 37 38	---	25 58 46 48	11 0 8 13	414 434 434 25
A-26a-D-5	Frank Spichtig. Sepulveda; 30 feet E. of Noble Ave., 800 feet S. of Pardianna St. Use: Irrigation. Casing: 14 inches. Gravel 50-90; 188-203; 231-266; 294-303; 323-342; 344-385.	4837	812	*x385	358 1110	9/25/31 6/24/32	145 158	0.28 0.35	26 26	247 271	36 41	532 601	19 18	169 186	46 52	101 109



TABLE 3. WELLS IN SAN FERNANDO VALLEY—Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific gravity (K x 10 at 25°C)	Boron ppm	Percent sodium, Ca + Mg + Na	Constituents (parts per million)					
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)
A-28b-B-6	City of San Fernando, Well 1, San Fernando; 300 feet SE. of Hubbard Ave. 609 feet NE. of 4th St. Use: Municipal. Casing: 15 inches. (1) Mean of 13 samples from 7/6/28 to 9/25/28, inclusive; (2) mean of 12 samples from 10/2/28 to 12/26/28, inclusive; (3) mean of 12 samples from 1/2/29 to 3/26/29, inclusive; (4) mean of 15 samples from 4/1/29 to 7/23/29, inclusive.	4850B	1,130	x170	11	Mean	52.3	0.30	27	241	15	64	-----	81	(e)
					12	Mean	53.1	0.33	30	231	17	61	-----	77	(e)
					13	Mean	55.7	0.30	18	230	16	51	-----	54	19
					14	Mean	54.5	0.26	21	228	16	41	-----	55	18
					(1)	7/17/31	-----	-----	-----	244	18	55	-----	-----	25
					356	9/25/31	53.6	0.35	23	241	16	59	8	56	23
					1112	6/24/32	53.5	0.24	23	238	16	53	6	57	30
A-31a-D-6	Los Angeles Creamery. S. of San Fernando; 300 feet SW. of Woodman (Payton) Ave. 100 feet SE. of Branford Ave. extended Use: Irrigation and industrial. Casing: 20 inches.	4967	824	x850	359	9/25/31	49.6	0.28	19	250	9	45	6	50	21
					1113	6/24/32	49.0	0.06	18	244	9	39	5	55	18
A-41a-C-7	Wildwood Trout Resort. W. of Sunland; 650 feet E. of Orcus Ave., 795 feet S. of Tujunga Valley Ave. (Foothill Blvd.). Use: Trout lakes and domestic. Casing: 20 inches.	4932	1,077	x147	343	9/23/31	61.6	0.20	20	241	14	101	7	68	24
					1114	6/24/32	67.2	0.15	20	238	16	128	4	78	23
A-44a-C-8	Wm. Taylor. W. of Sunland; 225 feet NE. of N. end of Tujunga Valley Ave. (Foothill Blvd.) main bridge over Big Tujunga Wash. Use: Domestic and irrigation. Casing: 12 inches. Gravel 43-70; 80-98.	4962	1,103	*x112	342	9/23/31	105	0.34	17	256	16	350	1	132	50
					1115	6/23/32	66.6	0.20	25	235	11	141	1	65	27
A-47-C-8	Judge Crail. N. of Sunland; W. of Ora Vista Ave. extended. 20 feet from cliff on N. side of Big Tujunga Wash. Use: Domestic and irrigation.	4982	1,300	*x480	1116	6/24/32	71.6	0.59	47	342	16	72	Tr.	40	26
A-48-C-8	American States Water Service Co. Sunland; 25 feet S. of Fenwick St., 75 feet E. of McVine Ave. Use: Municipal. Casing: 16 inches. Perforated 66 74; 116 122; 145 168; 240 236.	4983F	1,400	*290	(1)	7/24/31	-----	-----	-----	195	16	b10	-----	-----	-----
A-49a-C-8	American States Water Service Co. Sunland; 250 feet S. of Foothill Blvd. (Michigan Ave.), 50 feet E. of Woodward Ave. Use: Municipal. Casing: 14 inches. Gravel 108 140; 156-256; 290 302; 322 324.	4994	1,460	*x350	341	9/23/31	32.7	0.06	22	180	11	7	2	36	16
					1117	6/24/32	32.5	0.01	26	177	7	3	4	31	13
A-50b-D-9	Highway Highlands Water Co. SE. of Sunland; 75 feet S. of Foothill Blvd., 300 feet NW. of Central Ave. Use: Domestic. Casing: 12 inches.	5036	1,750	*x309	340	9/23/31	33.2	0.02	23	171	9	15	4	32	14
					1118	6/24/32	33.2	0.04	20	174	6	16	3	32	13
A-53a-D-10	T. J. Lawrence. La Crescenta; 75 feet W. of Briggs Ave., 0.90 miles N. of Foothill Blvd. Use: Irrigation and domestic. Casing: 12 inches.	5066	1,915	*x350	339	9/23/31	37.1	0.01	22	180	11	26	6	34	17
					1119	6/24/32	37.9	0.05	22	177	9	28	4	37	17
A-55c-D-9	City of Glendale, Sparr Well 2, S. of La Crescenta; 60 feet W. of La Crescenta Ave., 1,890 feet S. of Honolulu Ave. Use: Municipal. Casing: 16 inches.	5069C	1,173	-----	338	9/23/31	34.8	0.04	25	171	12	13	6	31	17
A-56b-E-2	George Platt, Well 1, SW. of Owensmouth; 210 feet S. of Victory Blvd., 25 feet W. of Berquist Ave. Use: Irrigation. Casing: 12 inches. Open bottom casing.	3561E	843	*130	353	9/24/31	136	0.37	26	296	62	392	22	144	52
					1064	6/15/32	132	0.35	24	296	62	383	25	144	50
A-57-F-1	Calabasas School District. Calabasas; 250 feet S. of Ventura Blvd., 135 miles SW. of Los Angeles city limits, 150 feet SE. of school building. Use: Domestic. Casing: 12 inches.	3544	1,080	450	1061	6/14/32	77.4	0.45	56	421	55	2	0	41	21
A-57a-F-2	Anton Weber. Calabasas; 80 feet N. of Ventura Blvd., 1.22 miles SW. of Los Angeles city limits, 150 feet E. of Calabasas Hotel. Use: Domestic. Casing: 4' x 4' dug well.	3544A	1,050	40	1062	6/14/32	191	1.84	70	528	80	460	11	67	38
A-57b-F-2	Industrial Fuel Supply Co. Calabasas; 30 feet S. of Ventura Blvd., 0.42 mile W. of Los Angeles city limits. Use: Domestic. Casing: 10 inches. Perforated in bottom 20 feet only; surface water cemented off.	3554	945	353	1063	6/14/32	452	1.98	91	*1095	108	1392	50	40	27
A-57c-F-2	Joe Daic. Calabasas; 185 feet S. of Ventura Blvd., 300 feet W. of Los Angeles city limits. Use: Irrigation. Casing: 5 inches, in bottom of 4' x 4' pit 34 feet deep.	3564A	932	75	1065	6/14/32	217	0.58	40	442	71	746	4	146	87
A-58d-E-3	Brant Ranch. S. of Owensmouth; 0.25 miles S. of Van Owen St., 0.30 mile E. of Topanga Canyon Road in line of Owensmouth Ave. extended S. Use: Irrigation. Casing: 12 inches.	3590	798	*x246	1069	6/14/32	152	0.29	23	290	38	571	6	160	68
A-59a-F-2	Park Moderne. S. of Calabasas; 30 feet E. of El Canyon Road (Old Topanga Canyon Road), 30 feet N. of Dry Canyon Creek, 0.25 miles S. of Los Angeles city limits. Use: Domestic and irrigation. Casing: 10 inches.	3575	980	-----	1068	6/14/32	278	0.34	32	516	73	1164	6	289	104



TABLE 3. WELLS IN SAN FERNANDO VALLEY—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
A-62-E-3	B. Vallecilla. E. of Owensmouth; 125 feet W. of Corbin Ave., 0.23 miles S. of Sherman Way. Use: Irrigation. Casing: 12 inches. Perforated 54-68.	3030	753	*x182	1095	6/22/32	163	0.37	25	302	55	565	8	187	55	106
A-62a-E-3	Hugo Carlson. SW. of N. Los Angeles; 25 feet E. of Mason Ave., 100 feet S. of Van Owen St. Use: Domestic. Casing: 8 inches. U. S. G. S. No. C-3.	3020	765	x33	1070	6/15/32	123	0.26	20	342	39	307	6	134	53	63
A-67-E-4	Tarzana Mineral Water. W. of Encino; 350 feet E. of Lindley Ave., 440 feet N. of Ventura Blvd. Use: Bottled mineral water. Casing: 20 inches. Perforated 735-785.	3673	800	*2100	1066	6/15/32	245	0.41	59	430	130	798	Tr.	97	72	360
A-67a-E-4	El Caballero Estates. W. of Encino; 200 feet W. of Enfield Ave. on S. line of Valley Vista Blvd., 1,100 feet E. of Lindley Ave., 2,800 feet S. of Ventura Blvd. Use: Bottled mineral water. Casing: 8 inches and 5 inches. Water coming from 900-foot level between 8-inch and 5-inch casings.	3674	835	1500	(*) 1067	7/23/31 6/15/32	----- 232	----- 0.48	81 79	398 473	72 73	728 718	0 0	43 44	28 34	444 428
A-70-E-5	Frank P. Ghigila. W. of Van Nuys; 40 feet S. of Victory Blvd., 900 feet W. of Havenhurst Ave. Use: Irrigation. Casing: 16 inches. Perforated 203-222.	3701	720	*x283	1071	6/15/32	153	0.39	25	330	57	493	44	184	57	107
A-70b-E-5	Art. Robinson. Well 1. W. of Van Nuys; 20 feet S. of Oxnard Ave., 90 feet E. of Havenhurst Ave. Use: Irrigation. Casing: 14 inches. Perforated 53-64; 179-188; 209-215; 329-336; 339-353. Water has strong odor of H <sub>2</sub> S.	3701A	705	*362	352	9/24/31	126	1.12	56	336	80	268	6	70	29	173
A-70c-E-5	Art. Robinson. Well 2. W. of Van Nuys; 50 feet S. of Oxnard Ave., 75 feet E. of Havenhurst Ave. Use: Irrigation. Casing: 12 inches. Perforated 54-68.	3701B	705	*80	1073	6/15/32	224	0.47	23	278	64	1015	23	291	85	151
A-71a-E-5	G. Rizzo. N. of Encino; 55 feet N. of Magnolia Blvd., 0.20 miles E. of Balboa Ave. Use: Irrigation. Casing: 14 inches.	3703	723	(x)	1074	6/15/32	80.9	0.10	16	324	34	110	18	87	38	32
A-73a-E-5	A. Nicholls. SW. of Van Nuys; 15 feet S. of Oxnard St., 15 feet W. of Sepulveda Blvd. Use: Irrigation. Perforated 54-66; 159-180.	3732A	703	*190	351	9/24/31	150	0.25	27	244	73	516	12	159	55	104
A-73c-E-5	Robert Schmidt. SW. of Van Nuys; 120 feet S. of Oxnard St., 0.2 miles E. of Sepulveda Blvd. Use: Domestic. Casing: 6 inches. Perforated 44-51.	3732C	697	*58	1075	6/15/32	104	0.48	38	357	34	202	23	97	27	99
A-76d-E-6	W. P. Whitsett. SE. of Van Nuys; 0.10 miles N. of Oxnard St., 0.10 miles W. of Fulton Ave. Use: Irrigation. Casing: 14 inches. Perforated 225-242; 248-256; 267-280; 323-340; 400-413.	3771A	691	*424	1076	6/15/32	116	0.17	26	235	48	365	4	119	43	75
A-77e-E-6	McKinley School for Boys. SE. of Van Nuys; 1,300 feet W. of Woodman Ave., 1,300 feet N. of Riverside Drive. Use: Irrigation. Casing: 20 inches. Perforated below 29 feet from ground surface.	3763B	650	285	1096	6/22/32	151	2.45	82	418	142	219	0	28	18	294
A-78f-E-6	W. F. Ziegler. E. of Van Nuys; 15 feet S. of Victory Blvd., 0.24 miles W. of Whitsett Ave. Use: Irrigation. Casing: 12 inches.	3791A	700	-----	1077	6/14/32	150	0.22	26	223	39	598	15	178	49	103
A-80d-E-7	City of Los Angeles, Well 13. NW. of North Hollywood; 60 feet S. of Van Owen St., 135 feet W. of Beck Ave. Use: Municipal.	3810A	712	-----	348 1097	9/24/31 6/22/32	33.1 35.8	0.15 0.14	25 22	177 174	7 9	29 27	2 2	38 41	12 12	22 20
A-80e-E-7	City of Los Angeles, Well 5. NW. of North Hollywood; 255 feet N. of Van Owen St., 60 feet E. of Hinds Ave. Use: Municipal.	3810B	720	-----	(1) (1) (1)	7/27/28 8/3/28 8/10/28	35.9 37.3 35.3	0.11 0.14 0.12	33 38 40	183 195 215	7 8 6	27 28 33	----- ----- -----	50 50 52	(*) (*) (*)	429 435 441
A-80h-E-7	O. L. Anderson. NW. of North Hollywood; 125 feet N. of Erwin St., 500 feet W. of Lankershim Blvd. Use: Domestic.	3811A	679	96	1152	7/19/32	43.1	0.07	17	186	18	35	7	55	12	18
A-81k-E-7	North Hollywood Park Dept. W. of North Hollywood; 150 feet E. of Beck Ave., 175 feet S. of Chandler Blvd. Use: Irrigation and domestic. Gravel 52-90, 117-130.	3813A	635	*132	349 1078	9/24/31 6/15/32	122 121	0.24 0.27	31 30	226 232	44 43	408 400	9 6	123 125	35 38	96 91
A-84f-E-7	Polar Water Co. North Hollywood; 100 feet S. of Burbank Blvd., 0.15 mile W. of Calabazas Blvd. Use: Bottled water.	3832D	618	-----	1153	7/19/32	43.1	0.08	21	189	12	30	11	53	12	23



TABLE 3. WELLS IN SAN FERNANDO VALLEY Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>-3</sup> at 25°C)	Baron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)					
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulphate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)
A-86d-E-7	City of Burbank, New Well 6, Burbank; 55 feet S. of Jeffries Ave., 90 feet E. of Maple St., 50 feet E. of Old Well 6. Use: Municipal. Casing: 20 inches. Perforated 135-186; 203-220; 269-285; 310-335; 389-394; 412-420; 445-453.	3841C	632	*x472	(1) 1079	4/28/31 6/15/32	43.7	0.14	22	214 204	14 6	195 51	2	49	15
A-87-E-7	City of Burbank, Well 5, Burbank; 200 feet S. of Chatsworth Branch of S. F. R. R., 100 feet E. of Rose St. Use: Municipal.	3843	590	(x)	(1)	4/28/31				189	12	121			
A-88-F-8	F. G. Locke, SW. of Burbank; 40 feet W. of Hollywood Way, 50 feet S. of Towland Ave. Use: Domestic. Casing: 8 inches. Gravel 38-51.	3855	546	*x51	350 1080	9/24/31 6/15/32	57.3 58.2	0.11 0.09	19 18	232 235	16 16	61 66	22 31	72 75	17 17
A-88g-F-7	Lakeside Golf Club, S. of North Hollywood; 200 feet W. of Valley Spring Lane, 35 feet W. of Arcola Ave., extended. Use: Irrigation. Casing: 16 inches. Perforated 30-127.	3845A	500	*140	1154	7/19/32	110	0.10	27	274	34	310	27	127	35
A-93-E-8	City of Burbank, Well 1, Burbank; 45 feet W. of Lake St., 93 feet S. of Magnolia Blvd. Use: Municipal. Casing: 12 inches.	3882B	500	(x)	(1)	4/28/31				207	11	123			
A-93d-E-8	City of Burbank, Well 2, Burbank; 50 feet W. of Lake St., 143 feet S. of Magnolia Blvd. Use: Municipal. Casing: 18 inches.	3882D	500	162	(1)	4/28/31				214	12	140			
A-93e-E-8	City of Burbank, Well 3, Burbank; 25 feet E. of Lake St., 135 feet S. of Magnolia Blvd. Use: Municipal. Casing: 10 inches. Perforated 62-97; 120-140; 150-164.	3882E	500	160	(1) 347	4/28/31 9/24/31	44.4	0.12	19	214 220	13 14	120 25	9	51	16
A-93f-E-8	City of Burbank, Well 4, Burbank; 33 feet E. of Lake St., 200 feet S. of Magnolia Blvd. Use: Municipal. Casing: 16 inches.	3882F	500	228	(1)	4/28/31				232	15	120			
A-93g-E-8	J. S. Harris, Burbank; 15 feet E. of Mariposa St., 700 feet N. of Alameda Ave. Use: Irrigation. Casing: 16 inches.	3883	525	x90	1098	6/22/32	55.0	0.08	18	226	28	24	23	64	17
A-95b-F-9	City of Glendale, Grandview Well 1, Glendale; 50 feet SW. of San Fernando Road, 200 feet NW. of Grand View Ave. Use: Municipal. Casing: 10 inches. Gravel 73-88; 178-180; 250-283; 380-412; 433-500.	3913	400	*x500	345 1081	9/23/31 6/13/32	53.4 51.7	0.21 0.21	33	210 210	36 28	43	1	51	12
A-96a-F-9	City of Los Angeles, Griffith Park Well 1, E. of Glendale; 210 feet S. of Riverside Dr., 450 feet S. of Los Angeles River; 2,882 feet NE. along Riverside Dr. from Los Feliz Road. Use: Irrigation. Casing: 20 inches. Perforated 40-100; 100-261.	3914	452	*294	1086	6/13/32	65.6	0.25	29	217	25	126	8	67	18
A-96d-F-9	City of Glendale, Well 12, Glendale; 150 feet NE. of Lake St., 40 feet SE. of Paul Ave. Use: Municipal. Casing: 18 inches. Perforated 155-181, 188-206; 266-412; 414-499. Sight H.S. color.	3914C	407	*x534	344 1084	9/23/31 6/13/32	49.0 52.0	0.14 0.20	30 34	217 217	18 25	54 58	4 2	49 45	17 13
A-96e-F-9	City of Los Angeles, Griffith Park Well 2, E. of Glendale; 800 feet W. of Riverside Dr., 1,100 feet W. of Los Angeles River; 1,955 feet NE. along Riverside Dr. from Los Feliz Road. Use: Irrigation. Casing: 16 inches. Perforated 22-73; 80-88.	3915	446	*151	1085	6/13/32	81.9	0.33	29	235	34	173	11	87	23
A-971-F-9	Forest Lawn Cemetery Assn. Well 2, S. of Glendale; 17 feet E. of Glendale Ave., 200 feet N. of San Fernando Road. Use: Irrigation. Casing: 16 inches. Gravel 76-121; 169-179.	3947A	438	*179	1082	6/13/32	46.3	0.09	25	210	21	24	11	42	14
A-98-E-10	City of Glendale, Glorietta Well 4, NE. of Glendale; 150 feet S. of Ramona Ave., 340 feet E. of Hermosa Dr. Use: Municipal. Casing: 16 inches. Gravel 60-99; 108-153; 165-185.	3961	965	*x189	337 1083	9/23/31 6/13/32	30.9 31.2	0.06 0.06	24 21	155 156	9 7	12 8	6 7	29 29	13 13

\* Log in files of Division of Water Resources.

x Water levels in files of Division of Water Resources.

<sup>a</sup> Includes small equivalent quantity of Carbonate (CO<sub>3</sub>).<sup>b</sup> Sulphate (SO<sub>4</sub>) determined by turbidity method.<sup>c</sup> Calcium and Magnesium determined together and calculated to equivalent quantity of Calcium.<sup>d</sup> Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.<sup>e</sup> Analysis by Santa Paula Citrus Fruit Association Chemical Laboratory, Santa Paula, California.<sup>f</sup> Analysis by California State Department of Public Health, Bureau of Sanitary Engineering.<sup>g</sup> Analysis by Charles D. Samuels, Ph. D., Covina, California.<sup>h</sup> Analysis by J. H. Parsons Chemical Company.<sup>i</sup> Analysis by Dearborn Laboratories.<sup>j</sup> Analysis by General Petroleum Corporation of California.<sup>k</sup> Analysis by Los Angeles Testing Laboratory, Los Angeles.<sup>l</sup> Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.



TABLE 4. WELLS IN UPPER SAN GABRIEL VALLEY

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>-3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-1d-F-11	Valley Water Co., Well 3. La Canada; 675 feet N. of Michigan Blvd., 90 feet E. of Hampton Road. Use: Domestic and irrigation. Casing: 20 inches. Gravel: 239-257; 259-280; 282-300; 375-380; 437-439; 570-591. U. S. D. A. analysis on 10/23/31 is duplicate of D. W. R. Lab. No. 481.	4010C	1177	*x591	481 (*)	10/23/31 10/23/31	35.5 35.3	0.12 0.18	25 22	183 185	12 11	10 6	4 4	37 37	13 12	22 e19
C-6-E-11	City of Pasadena, Windsor Well, Altadena; 600 feet SE. of intersection of Mountain View St. and Windsor Ave. Use: Municipal. Casing: 26 inches in 150-foot pit. Perforated 353-359; 474-478; 498-503; 534-543.	4030C	1151	*x573	(d)	4 27 31				183	12	10				
C-15a-F-11	City of Pasadena, Copelin No. 4 Motor, 2d well. Pasadena; 150 feet N. of Manzanita St., 100 feet E. of Montone Ave. In same shaft as C-15-F-11. Use: Municipal. Casing: 14 inches. Gravel 167-384; 550-564.	4043C	918	*x084	(e)	Oct., 1918			27	146	17	33	16	30	11	e20
C-17-F-11	City of Pasadena, Sunset Ave. Well. Pasadena; 290 feet NW. of Mountain St., 20 feet NE. of Manzanita Ave., 300 feet W. of intersection of Sunset Ave. and Mountain St. Use: Municipal. Casing: 26 inches in 70-foot pit. Perforated 245-325; 334-380; 396-415; 434-447; 472-483; 509-525; 535-543; 555-613; 671-728.	4043B	934	*x751	(d)	4/27/31				171	11	12				
C-20-F-11	City of Pasadena, Brookside Well. Pasadena; 400 feet N. of Linda Vista Ave., 300 feet W. of Arroyo Terrace, 100 feet E. of S.E. corner of plunge fence. Use: Not used, formerly municipal. Casing: 18 inches in 84-foot pit. W. S. P. 219, No. 466, Pasadena Quadrangle	4034B	774	*x101	(e)	Oct., 1918			28	156	26	30	17	38	12	e26
C-22-F-11	City of Pasadena, Garfield Well. Pasadena; 500 feet N. of Villa St., 100 feet W. of Euclid Ave., extended. Use: Municipal. Casing: 24 inches in 167-foot pit. Perforated 192-257; 295-327; 355-360; 387-419; 602-620; 624-629. U. S. D. A. analysis on 10/23/31 is duplicate of D. W. R. Lab. No. 479.	4054	899	*x720	(d) 479 (e)	4/27/31 10/23/31 10/23/31	27.0 27.0	0.22 0.27	34 23	110 113 125	13 9 12	18 20 20	9 20 8	23 24	9 13	23 e15
C-23d-G-11	City of South Pasadena, Arroyo Well 2, South Pasadena; N. 73° E., 1,650 feet from east end of Mission St., Arroyo Seco Bridge. Use: Proposed municipal. Casing: 16 inches. Perforated 22-102.	4028	580	*135	485	10/23/31	46.4	0.06	18	165	28	48	11	50	19	21
C-24a-F-11	City of South Pasadena, Alorton Well, South Pasadena; 116 feet W. of Fairview Ave., 420 feet S. of Columbia Ave. Use: Municipal. Casing: 16 inches. Perforated 82-150.	4047B	757	*195	(d)	8/31/31				225	38	838				
C-30a-F-11	City of Pasadena, Alpine Well, Pasadena; 30 feet E. of Euclid Ave., at end of Alpine St. Use: Municipal. Casing: 18 inches. Perforated 60-90; 100-160; 170-275.	4057L	755	*x285	(d) 483	4/27/31 10/23/31	33.5	0.07	27	165 165	13 12	17	7	36	12	23
C-37-E-11	Robao Canyon Land and Water Assn., Figueroa St. Well 4. Altadena; 230 feet N. of Figueroa St., 200 feet E. of Crescent Ave. Use: Irrigation and domestic. Casing: 26 inches. Gravel 195-325; 335-347; 480-485; 548-553.	4041B	1151	*x650	480	10/23/31	23.9	0.02	32	119	7	4	9	22	7	19
C-39-E-12	Oak Park Water Co., Altadena; 50 feet S. of New York Ave., 1,000 feet W. of Santa Anita Ave. Use: Domestic. Casing: 14 inches. Gravel 249-290; 315-330. W. S. P. 219, No. 82, Pasadena Quadrangle.	4092	1010	*x386	482	10/23/31	27.1	0.25	23	140	7	8	4	30	11	16
C-44-F-12	City of Pasadena, Craig Well, Pasadena; 150 feet S. of Paloma St., 600 feet W. of Craig Ave. NE. well of two. Use: Municipal. Casing: 26 inches in deep pit. Perforated 270-303; 310-319; 324-386; 434-535; 550-589; 593-623; 635-690; 717-753; 783-803; 807-822; 850-906; 925-931; 949-968; 1005-1009; 1022-1038; 1051-1055. W. S. P. 219, No. 83, Pasadena Quadrangle.	4094	878	*x1089	(d)	4/27/31				140	11	14				
C-45a-F-12	City of Pasadena, Madre Well (formerly A. B. Chapman Estate, Well 5), Pasadena; 400 feet N. of Colorado St., 1,700 feet E. of Eaton Wash. Use: Municipal. Casing: 8 inches. Perforated 111-119; 179-200; 356-364; 412-417.	4115A	698	*x425	(*)	Oct., 1918			14	183	9	13	3	41	9	e10
C-49-F-12	San Gabriel Valley Water Co., Well 10-1921-B, Pasadena; 20 feet W. of Santa Anita Ave., 55 feet S. of Oswego St. S. well of two. Use: Domestic and irrigation. Casing: 16 inches. Gravel 137-150; 160-175; 192-200; 218-220; 231-238; 249-274; 277-284; 297-299; 322-368.	4105	720	*x399	(*)	Oct., 1918			28	134	12	24	7	25	11	e19



TABLE 4. WELLS IN UPPER SAN GABRIEL VALLEY Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium, Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-56-F-12	City of Alhambra, Well 25 (new). Pasadena; 800 feet W. of Keweenaw Drive, 25 feet N. of Canyon Drive. Use: Municipal. Casing: 18 inches in shallow pit in east end of pump house. Perforated 80-112; 119-157; 166-182.	4067	709	*x234	121 (d)	7/13/31 7/20/31	37.2		38	162 154	18 24	28 b31	7	33	10	35
C-62-F-12	City of Alhambra, Well 6 Turbine. San Marino; 5 feet E. of Keweenaw Drive, 150 feet S. of Canyon Drive. Use: Municipal. Casing: 18 inches. Perforated 105-114; 130-154; 204-274; 280-290.	4067C	667	*x300	(d)	7/20/31				146	16	b10				
C-65-F-12	City of Alhambra, Well 11A. San Marino; 25 feet N. of Mill Lane, 0.23 miles E. of old adobe mill, 300 feet E. of St. Albans Road, 200 feet W. of Virginia Ave. In west end of pump house. Use: Municipal. Casing: 18 inches. Perforated 43-47; 170-182; 187-195; 200-212; 242-251; 278-305; 323-332; 375-383.	4077	592	*x428	119 (d)	7/13/31 7/20/31	33.8		48	159 161	13 15	14 b12	8	29	6	41
C-66-F-12	San Gabriel County Water District, Well 1. San Marino; 100 feet W. of Santa Anita Road, 500 feet S. of Robles Ave. Casing in east end of pump house. Use: Domestic and irrigation.	4107C	605	(x)	(d)	7/20/31				122	16	b12				
C-72a-F-12	W. L. Stewart, Well 1. San Marino; 500 feet E. of San Gabriel Blvd., 600 feet N. of Lombardy Road. Use: Irrigation. Gravel 80-92; 112-124; 254-271; 326-338; 360-374; 434-544.	4106D	657	*577	(e)	Jan., 1920				a115	18					
C-74a-F-12	Thomas Frost, Pasadena; N. side of San Pasqual St., 700 feet E. of Santa Anita Ave. Use: Irrigation. Casing: 14 inches. Gravel 68-128; 202-205; 250-260; 330-400.	4106B	678	*404	(e)	Jan., 1920				a115	15					
C-79-F-13	City of Pasadena, Chapman Well (formerly A. B. Chapman Estate, Well D). E. of Pasadena; 200 feet S. of Foothill Blvd., 850 feet E. of Sierra Madre Villa Ave., at dome reservoir. Use: Municipal. Perforated 126-140; 184-226; 348-354; 370-400.	4125A	700	*x570	(e)	Oct., 1918			1	189	9	22	1	38	16	a1
C-87-F-13	City of Monrovia, Well 6. W. of Arcadia; 300 feet W. of Sierra Madre Ave. (W. line of Santa Anita Rancho), 100 feet N. of Mohawk St. West well. Use: Municipal. Casing: 26 inches.	4135	625	*x476	270	9/2/31	34.0	0.30	18	189	7	12	2	37	12	15
C-99-F-13	City of Sierra Madre, Well 2. Sierra Madre; 0.45 miles W. of Santa Anita Ave., 300 feet N. of Central Ave. Use: Municipal. Casing: 26 inches. Gravel 260-298; 373-390.	4163A	692	*x446	(d)	7/15/31				188	14	b15				
C-101-F-13	City of Arcadia, Well 1. Arcadia; 700 feet W. of Santa Anita Ave., 100 feet N. of Orange Grove Ave. SE, well in group. Use: Municipal. Casing: 22 inches. Gravel 183-210; 212-216; 221-223; 280-290; 296-300; 394-432; 434-464.	4164	602	*x464	107 (d)	7/2/31 7/24/31	37.7		66	162 171	14 17	35 b25	6	12	7	54
C-104-F-13	City of Arcadia, Well 4. Arcadia; 700 feet W. of Santa Anita Ave., 300 feet N. of Orange Grove Ave. NE, well of group. Use: Municipal. Casing: 24 inches. Perforated 146-194; 220-490.	4164C	611	*x490	(d)	8/17/25 7/24/31			21	154 163	14 15	18 b23		35	1	a17
C-104b-F-13	City of Arcadia, Well 2a. Arcadia; 315 feet N. of Orange Grove Ave., 355 feet W. of Santa Anita Ave. Use: Municipal. Casing: 24 inches. Gravel 153-194; 226-246; 264-292; 380-406; 408-430; 432-459; 470-478; 484-502.	4164D	600	*x530	(d)	7/24/31				181	17	b50				
C-109-G-12	San Gabriel Valley Water Co., Well 125 (Richardson Well). Pasadena; 40 feet E. of Oak Knoll Ave., 60 feet N. of Huntington Garden Drive, extended. Second well in bottom of 60-foot pit, north pump house of two. Use: Domestic and irrigation. Casing: 12 inches. W. S. P. 219, No. 467, Pasadena Quadrangle.	4068A	649	x200	(e)	Oct., 1918			32	a189	21	41	14	42	13	a34
C-117a-F-12	San Gabriel Valley Water Co., Walnut St. Plant, Well 1928. Pasadena; 200 feet S. of Walnut St., 100 feet E. of Huntington Drive. Use: Irrigation and municipal. Casing: 24 inches. Perforated 638-674.	4095	754	*x690	(d)	7/20/31				132	15	b10				
C-119-F-12	San Gabriel Valley Water Co., Well 1917. San Marino; 25 feet E. of Canterbury Road, 35 feet S. of Lombardy Road. Use: Domestic and irrigation. Casing: 18 inches. Perforated 127-160; 170-260; 323-370.	4096A	670	*x385	(d)	7/20/31				122	17	b10				
C-122-F-12	San Gabriel Valley Water Co., Well 59. San Marino; 450 feet S. of Robles Ave., 200 feet W. of Santa Anita Ave., produced south. On east side of wash. Use: Domestic and irrigation, not used since 1927. Casing: 16 inches, in deep pit, in south end of pump house.	4107	620	x430	(e)	Oct., 1918			40	128	15	16	23	30	4	a29



TABLE 4. WELLS IN UPPER SAN GABRIEL VALLEY - Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-122a-F-12	San Gabriel County Water District, Well 4. San Marino; 150 feet E. of Santa Anita Ave., 200 feet S. of Robles Ave. NW, well of group. Use: Domestic and irrigation. Casing: 24 inches.	4107B	623	x498	(d)	7/20/31	-----	-----	-----	107	16	b10	-----	-----	-----	-----
C-124-F-12	San Gabriel Valley Water Co., Patton Well 1923. Pasadena; 800 feet E. of Oak Grove Ave., 150 feet S. of Arden Road, 250 feet E. of Wilson Ave. Casing in N. end of pump house, 100 feet E. of old well. Use: Formerly domestic and irrigation. Casing: 18 inches. Gravel 134-142; 218-225; 326-330; 401-410; 173-179; 296-298; 363-369; 421-437.	4076B	726	x501	(d)	7/20/31	-----	-----	-----	151	18	b12	-----	-----	-----	-----
C-124a-F-12	San Gabriel Valley Water Co., G. S. Patton—old well. Pasadena; 150 feet S. of Arden Road, 150 feet E. of Wilson Ave., 100 feet W. of C-124-F-12. Under booster pump house at SE. corner of reservoir. Use: Not used, formerly irrigation and domestic. Casing: 24 inches. Perforated 114-116; 133-140; 153-170; 180-200; 246-248; 338-352; 363-380; 388-430.	4076C	725	x430	(c)	Oct., 1918	-----	-----	31	159	21	25	24	33	10	28
C-127-F-11	City of Pasadena, Villa St. Well. Pasadena; at S. end of Villa St. reservoir, just NW. of intersection of Villa St. and Euclid Ave. Use: Municipal. Casing: 26 inches in 210-foot concrete pit. Perforated 212-364; 374-426; 450-468; 476-482; 518-523; 527-564; 595-612; 624-635; 729-741; 794-840; 874-876.	4054A	890	x953	(d)	4/27/31	-----	-----	-----	128	13	b16	-----	-----	-----	-----
C-130-F-13	City of Sierra Madre, Well 1. Sierra Madre; 2,000 feet W. of Santa Anita Ave., 100 feet N. of Central Ave. Use: Municipal. Casing: 26 inches. Gravel 212-241; 285-335; 363-376; 425-459. W. S. F. 219, No. 258, Pasadena Quadrangle.	4163	674	x459	(d)	7/15/31	-----	-----	-----	161	15	b23	-----	-----	-----	-----
C-131-F-12	San Gabriel Valley Water Co., Oak Knoll 2 (Well 1921a). Pasadena; 125 feet E. of Oak Knoll Ave., 50 feet N. of P. E. Ry. E. well of two. Use: Domestic and irrigation. Casing: 18 inches. Gravel 117-130; 133-139; 165-178; 205-279.	4066D	739	x300	(d)	7/20/31	-----	-----	-----	166	18	b10	-----	-----	-----	-----
C-201a-G-12	City of Alhambra, Longden Ave. Well. N. of San Gabriel; 100 feet E. of Rubio Wash, 325 feet N. of Longden Ave. Use: Municipal. Casing: 26 inches. Perforated 296-336; 346-389; 412-437; 446-480; 492-563; 680-731; 735-778.	4108	502	x801	117 (d)	7/13/31 7/20/31	31.4	-----	41	131 134	13 22	16 b25	18	25	10	32
C-202-G-12	Alice H. Graves. San Marino; 175 feet NW. of Huntington Drive, 70 feet SW. of El Molino Ave., 10 feet S. of reservoir near E. end. Use: Municipal. City of Alhambra purchases water. Casing: 15 inches. Gravel 199-230; 278-308; 314-353; 401-413; 434-481.	4068	560	x505	120 (d)	7/13/31 7/20/31	42.6	-----	25	143 151	34 35	21 b15	21	42	16	26
C-204-G-12	City of South Pasadena, Wilson Well 2. San Gabriel; 110 feet W. of Bradbury Drive, 275 feet S. of Adelyn Drive. Use: Municipal. Casing: 25 inches. Perforated 222-280; 300-310; 330-430; 440-525; 559-657; 663-688.	4009	479	x720	116 (d)	7/13/31 8/31/31	39.6	-----	27	174 195	16 21	23 b37	18	37	19	29
C-206-G-12	City of Alhambra, Garfield Well 1. Alhambra; 90 feet W. of Garfield Ave., 25 feet S. of McLean St. Use: Municipal. Casing: 15 inches. Perforated 237-263; 276-325; 340-353; 373-471; 483-496.	4069	535	x560	118 (d)	7/13/31 7/20/31	45.0	-----	26	149 151	32 40	25 b44	27	43	16	29
C-211a-H-12	City of Monterey Park, Emerson Plant, Well 2. Monterey Park; in center of Emerson Ave., 80 feet W. of McPherrin Ave. East well in pump house. Use: Municipal. Casing: 16 inches. Perforated 122-136; 138-140; 152-166.	2873A	396	x302	115 (d)	7/13/31 7/20/31	71.1	-----	57	232 254	77 90	60 b28	1	32	18	96
C-211b-H-12	Midwick Country Club, South 6th St. Plant, Well 1. Alhambra; 30 feet W. of 6th St., 50 feet S. of Glendon Way. East well of two in underground pump house. Use: Irrigation. Casing: 16 inches. Perforated 130-132; 154-198.	2872A	412	x412	229	8/13/31	42.5	-----	37	180	30	18	16	33	16	39
C-211j-H-12	City of Monterey Park, Garvey Ave. Plant 2. East of Monterey Park, 200 feet W. of Delta St., 230 feet S. of Garvey Ave. W. of Plant 1. Use: Municipal. Casing: 16 inches. Gravel 209-249; 388-422.	2913	262	x450	(d)	7/20/31	-----	-----	-----	195	38	b12	-----	-----	-----	-----
C-213b-H-13	Potrero Heights Water Co., Well 2. S. of San Gabriel; 0.31 miles S. of Rush Ave., 403 feet W. of Walnut Grove Ave. Use: Not used. Gravel 94-97; 175-197; 286-309; 407-420; 491-513.	2913B	231	x518	(c)	Oct., 1918	-----	-----	46	238	42	17	0	40	13	59
C-213c-H-12	City of Monterey Park, Garvey Ave. Plant 1. E. of Monterey Park, 50 feet W. of Delta St., 230 feet S. of Garvey Ave. E. of Plant 2. Use: Municipal. Casing: 16 inches. Gravel 209-249; 388-422.	2913A	262	x450	114 (d)	7/13/31 7/20/31	47.6	-----	26	189 180	34 28	13 b13	21	46	18	30



TABLE 4. WELLS IN UPPER SAN GABRIEL VALLEY. Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>6</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate (HCO <sub>3</sub> )	Chloride (Cl)	Sulfate (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-214-G-13	Mr. Longly, E. of Temple; 20 feet W. of El Monte Ave., 20 feet S. of Palm Drive. Deep pit. Use: Irrigation. Gravel 141-161; 169-177; 228-232; 385-387; 408-460; 451-459.	416S	369	*x477	278	9/ 2/31	42.6	0.22	20	210	14	14	13	45	18	21
C-223L-G13	Driftwood Dairy, N. of El Monte; 170 feet S. of Lower Azusa Road, 600 feet W. of Rio Hondo Bridge, 350 feet E. of El Monte Ave. Use: Domestic and irrigation. Casing: 16 inches.	2960A	302	x142	274	9/ 2/31	39.4	0.20	28	192	13	12	13	42	7	24
C-233e-H-13	E. Van Imeshoot, S. of El Monte; 183 feet W. of Hoyt St., 235 feet N. of Garvey Road. Use: Irrigation. Casing: 7 inches. Perforated 65-70.	2953F	266	x73	280	9/ 2/31	50.0	0.02	13	247	16	30	11	66	19	17
C-238i-H-13	A. Alluisi, S. of El Monte; 55 feet S. of Durfee Road, 0.46 miles SW. of Slack Ave. Use: Domestic. Casing: 7 inches. Perforated 40-46.	2956D	230	*x50	271	9/ 2/31	50.7	0.03	11	253	11	35	13	72	17	14
C-243-F-14	Beardsley Water Ditch Co., S. of Monrovia; 20 feet W. of Mountain Ave., 600 feet S. of Euclid Ave. Use: Irrigation. Gravel 90-100; 163-183; 229-257; 273-333; 348-352.	4217	413	*x352	247	8/21/31	43.0	-----	14	a241	9	21	4	59	17	17
C-243b-F-14	City of Monrovia, Lower Norumbega Well. Monrovia; 150 feet NE. of Norumbega Drive crossing over Sawpit Creek. Use: Municipal. Casing: 6' x 6' wooden pit to tunnel under creek.	4203	785	x80	(d)	7/15/31	-----	-----	-----	332	27	b35	-----	-----	-----	-----
C-243e-E-14	City of Monrovia, Upper Norumbega Well. Monrovia; pump house on E. bank of Sawpit Creek, 0.3 miles NW. from Norumbega Drive crossing of Sawpit Creek. Casing: 8' x 8' pit to tunnel under creek.	4203A	850	x70	(d)	7/15/31	-----	-----	-----	312	23	b33	-----	-----	-----	-----
C 245-G-14	City of Monrovia, San Gabriel Well 1. S. of Monrovia; 400 feet E. of Peck Road, 200 feet N. of road running along ranch line about 0.5 miles N. of Live Oak Ave., 90 feet N. of C-245a-G-14. Use: Municipal. Casing: 26 inches. Perforated 73-132; 136-180; 182-214; 217-350; 374-420.	4198	368	*x440	(f)	8/ 3/25	-----	-----	6	187	8	-----	-----	40	12	a7
C-245a-G-14	City of Monrovia, San Gabriel Well 2. S. of Monrovia; 400 feet E. of Peck Road, 110 feet N. of road running along ranch line 0.5 miles N. of Live Oak Ave., 90 feet S. of C-245-G-14. Use: Municipal. Casing: 26 inches. Gravel 74-132; 135-177; 183-200; 229-246; 265-300; 310-330; 379-430.	4198E	368	*x470	281	9/ 2/31	36.7	0.01	16	207	7	10	9	44	16	15
C-255b-H-14	Mountain View School. SE. of El Monte; 320 feet SE. of Mountain View Road, 972 feet SW. of Valley Blvd. Use: Domestic and irrigation. Casing: 7 inches. Gravel 8-15; 37-41; 47-49; 81-95.	2973L	283	*95	277	9/ 2/31	40.4	0.02	13	223	4	24	6	56	14	14
C-267-H-14	P. Briano. SE. of El Monte; 250 feet NW. of Workman Mill Road, 0.83 miles SW. of Central Ave. Use: Domestic and irrigation. Casing: 7 inches. Gravel 20-76; 87-103.	2986	319	*x103	275	9/ 2/31	59.7	0.07	48	214	36	78	3	44	13	71
C-268L-I-13	Pico County Water District. S. of El Monte; 0.56 miles E. of Durfee Road, 40 feet S. of Syphon Road, in Whittier Narrows. Use: Irrigation. Casing: 8 inches. Perforated 48-73; 88-97.	2947F	212	*101	428	10/13/31	34.8	0.05	12	192	4	24	2	48	12	10
C-280-F-15	Duarte Mutual Water Co., Las Lomas Well. E. of Monrovia, 100 feet S. of P. E. By., 100 feet W. of Las Lomas Ave., at Las Lomas Station. Use: Irrigation. Casing: 26 inches. Perforated 90-270.	4255E	591	*x297	246	8/21/31	41.9	-----	15	a225	9	28	4	56	16	17
C-297b-G-15	South Baldwin Park. Baldwin Park; 125 feet NE. of Merced Ave., 330 feet NW. of Covina Blvd. Use: Irrigation.	3022	350	x160	250	8/21/31	49.4	-----	11	241	16	15	29	68	16	13
C-304d-H-15	La Puente Water Co., Well 2. S. of Baldwin Park; 0.49 miles NE. of Merced Ave., 57 feet NW. of Willow Ave. Use: Irrigation. Perforated 81-113; 135-153; 163-219; 237-273.	3052	364	*273	253	8/21/31	42.1	-----	18	210	13	19	18	50	16	19
C-311e-H-15	Anthony Fickeworth. S. of Baldwin Park; 60 feet S. of Fairgrove Ave., 180 feet E. of Glendora Ave. Use: Domestic. Casing: 7 inches. Perforated 138-141; 189-193.	3055L	334	*200	254	8/21/31	62.3	-----	31	217	30	94	9	62	18	47
C-325e-F-16	Glendora Consolidated Mutual Irrigating Co., Azusa Plant. North Well. N. of Azusa; 2,700 feet N., 78° W. of Intersection of Sierra Madre Ave. and San Gabriel Road. North well of two.	4285F	675	-----	210	8/12/31	35.0	-----	13	192	4	24	1	48	14	13
C-335a-G-16	Glendora Consolidated Mutual Irrigating Co., Vosberg Plant. Azusa, 0.7 miles W. of Azusa Ave., 450 feet S. of First St. Use: Irrigation. Casing: 26 inches. Gravel 252-500.	4287A	531	*x500	215	8/12/31	47.6	-----	13	217	13	26	21	65	14	16



Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-336-G-10	Glendora Independent Water Co., Well 2, S. of Azusa; 0.88 miles E. of Irwindale Ave., 330 feet S. of Bonita Ave. (Arrow Highway). Use: Domestic and irrigation. Casing: 26 inches in S. end of pump house. Gravel 163-283; 291-305; 307-309; 398-406.	4289	471	*x411	245	8/21/31	48.7	-----	18	232	9	27	27	58	18	23
C-338-G-16	City of Covina, Well 1, Covina; 450 feet S. of Covina Blvd., 400 feet W. of 4th St., in Covina City Park. Use: Municipal plume and park. Casing: 16 inches. Perforated 387-390; 417-451; 490-495.	3101	533	*x548	(d) 360	7/22/31 9/26/31	----- 40.3	----- 0.08	----- 23	166 171	17 14	22	-----	30	16	22
C-343-H-10	A. R. Evans, S. of Covina; 50 feet W. of Hollenbeck Ave., 500 feet N. of Arroyo Dr. S. well of two. Use: Irrigation and domestic. Casing: 16 inches. Perforated 222-234; 383-386; 480-497.	3102	487	*x505	(e)	Aug., 1918	-----	-----	41	226	23	54	11	50	9	*51
C-348-H-16	Valencia Water Co., Well 2, SW. of Covina; 20 feet E. of Azusa Ave., 480 feet N. of Service St., 260 feet N. of bridge across Walnut Creek on Azusa Ave. Use: Irrigation. Casing: 16 inches. Perforated 137-140; 226-231; 314-319; 347-350; 381-401; 464-468.	3063	441	*x500	257	8/21/31	55.2	-----	30	229	20	71	7	53	20	41
C-353a-H-16	Valencia Heights Water Co., Well 1, S. of Covina; 230 feet S. of Walnut Creek Wash, 0.13 miles E. of Citrus Ave. Use: Irrigation and domestic. Casing: 16 inches. Gravel 153-165; 167-173; 209-223; 311-325.	3113A	470	*475	361	9/26/31	46.8	0.08	26	204	12	42	9	46	18	31
C-357a-I-16	F. H. Amar, Well 1, SE. of Baldwin Park; 280 feet W. of Pass and Covina Road, 0.39 miles S. of Amar Road. Use: Domestic. Casing: 12 inches.	3086	432	*430	256	8/21/31	82.5	-----	23	204	53	128	43	90	25	46
C-364-I-15	Kwis Water Co., Well 2, S. of Puente; 100 feet S. of Gale Ave., 0.25 miles W. from Hacienda Blvd. on west bank of small drain. Use: Irrigation. Casing: 14 inches, in shallow pit in S. end of pump house.	3038	330	x300	(e)	Oct., 1918	-----	-----	34	354	66	166	0	91	37	*90
C-365e-H-15	J. C. Pearson, Well 1, SE. of Baldwin Park; 35 feet S. of Merced Ave., 2350 feet E. of Glendora Ave. Use: Irrigation and domestic. Casing: 12 inches. Perforated 133-143; 239-245.	3064A	383	*x300	255	8/21/31	49.0	-----	28	204	20	48	11	49	18	35
C-380b-H-15	J. P. Calegan, SW. of Baldwin Park; 475 feet NW. of Sunset Ave., 42 feet SW. of Temple Ave. Use: Irrigation. Casing: 7 inches. Perforated 40-50.	3035L	310	*55	251	8/21/31	82.9	-----	20	*354	48	57	43	98	28	43
C-393-G-15	S. M. Walker, Well 3, N. of Baldwin Park; 50 feet W. of N. Maine Ave., 260 feet S. of Bonita Ave. (Arrow Highway). Use: Irrigation. Casing: 20 inches. Gravel 117-223; 225-446.	4236C	425	*x446	248	8/21/31	34.7	-----	11	*198	4	17	9	49	13	10
C-399-G-16	City of Covina, Well 2, E. of Covina; 700 feet S. of Cypress Ave., 30 feet W. of Grand Ave. Use: Municipal. Casing: 20 inches. Perforated 335-434.	3120	622	*x575	(d)	7/22/31	-----	-----	-----	166	20	17	-----	-----	-----	-----
C-404-F-17	City of Glendora, Well 2, Glendora; 600 feet N. of Sierra Madre Ave., 150 feet W. of Lorraine Ave. Use: Municipal. Casing: 24 inches. Perforated 498-520; 567-582; 602-635; 660-682.	4355A	968	*x693	(d) 287	7/22/31 9/10/31	----- 58.6	----- 0.09	----- 19	302 302	18 14	10 49	-----	66	26	30
C-405-F-17	City of Glendora, Well 1, Glendora; 25 feet N. of Sierra Madre Ave., 200 feet W. of Lorraine Ave. Use: Municipal. Casing: 20 inches. Gravel 398-500; 508-514.	4355	950	*x525	(d)	7/22/31	-----	-----	-----	266	17	10	-----	-----	-----	-----
C-406-F-17	Glendora Consolidated Mutual Irrigating Co., Mutual Well 7, Glendora; 1,200 feet E. of Live Oak Ave., 350 feet N. of Leadora Ave., on W. bank of Little Dalton Creek. Use: Irrigation. Casing: 20 inches. Perforated 300-520.	4345A	905	*x520	(e)	Oct., 1918	-----	-----	20	*274	18	25	7	58	16	*24
C-409-F-17	Glendora Consolidated Mutual Irrigating Co., Irrigation Well 7, Glendora; east well of two on W. bank of Little Dalton Creek at end of Whitcomb Ave., 350 feet E. of Live Oak Ave. Use: Irrigation.	4345	870	x	(e)	Oct., 1918	-----	-----	34	262	15	26	6	56	5	*38
C-414-F-17	Glendora Independent Water Co., Well 6, E. of Glendora; 310 feet W. of San Jose Drive, 1,700 feet S. of Foothill Blvd., Casing in shallow pit. Use: Irrigation. Gravel 87-98; 107-135.	4356A	829	*140	(e)	Oct., 1918	-----	-----	27	201	21	37	36	49	18	*33
C-437a-G-17	Columbia Land and Water Co., Well 6, S. of Glendora; 600 feet E. of Sundowner Ave., 35 feet N. of Gladstone Ave. Use: Irrigation. Casing: 16 inches. Gravel 157-181; 194-200; 220-233.	4358A	793	*x414	249	8/22/31	47.5	-----	19	210	13	44	18	50	21	23



Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-446-G-17	San Dimas Water Co., Lone Hill Well 2, W. of San Dimas; 550 feet S. of Bonita Ave., 30 feet E. of Lone Hill St., in bottom of ravine. Use: Irrigation. Perforated 224-251; 343-356. U. S. D. A. analysis on 8/22/31 is duplicate of D. W. R. Lab. No. 235.	4379	835	*472	235 (e)	8/22/31 8/22/31	37.6 38.7	0.13	31 35	*174 201	9 9	30 30	8 9	37 38	13 11	31 35
C-446e-G-18	San Dimas Water Co., San Dimas; 60 feet S. of A. T. & S. F. Ry., 600 feet W. of Walnut Ave. Use: Irrigation. Casing: 16 inches. Perforated 287-318.	4399	920	*318	99	6/29/31	41.9	0.04	37	165	17	14	16	32	14	37
C-464f-F-19	R. S. Brydon, Well 1, N. of La Verne; 2,200 feet N. from east end of Wheeler-La Verne Road, 800 feet W. of private road running N. from E. end of Wheeler-La Verne Road. Upper well of two. Use: Irrigation. Casing: 18 inches.	4435	1,650	254	(e)	Nov., 1918			34	*271	14	22	7	57	9	*42
C-464b-F-19	R. S. Brydon, N. of La Verne; 3,500 feet E. of N. end of Wheeler-La Verne Road, 260 feet N. of E. and W. road, 50 feet W. of private road road N. Use: Irrigation on.	4445	1,502	*120	441	10/16/31	45.4	0.04	18	259	9	6	6	54	19	21
C-476e-F-18	F. H. Paine, N. of La Verne; 300 feet northerly along Wheeler-La Verne Road from corner (second turn N. of Base Line Road), thence 150 feet E. to well. Use: Irrigation and domestic. Casing: 12 inches. W. S. P. 219, No. 218, Pomona Quadrangle.	4426C	1,315	*148	439	10/16/31	88.3	Tr.	14	204	41	155	66	106	35	29
C-476f-F-18	B. L. Reynolds, N. of La Verne; 300 feet W. of Wheeler-La Verne Road, 4,160 feet N. of Base Line Road, on S. side of short east-west road. Use: Domestic and irrigation. Gravel 127-135; 150-158.	4426A	1,280	*370	(e)	Oct., 1918			6	183	14	21	13	59	16	*6
C-482-G-18	Glendora Consolidated Mutual Irrigating Co., Mutual Well 4, NW. of La Verne; 60 feet S. of Old Foothill Blvd., 350 feet W. of Artesia Ave. Use: Irrigation.	4407C	1,050	x500	(e) 218	Oct., 1918 8/12/31	48.8		23 21	*249 253	18 11	39 36	10 4	54 52	18 23	*25 28
C-501a-G-18	San Dimas Water Co., Artesia Plant, San Dimas; 100 feet S. of Juanita Ave., 50 feet E. of Artesia Ave. Use: Irrigation. Casing: 18 inches.	4408	1,017	*x571	438	10/16/31	41.9	0.01	32	204	14	21	5	35	15	33
C-546a-G-18	Base Line Water Co., Well 2 (formerly F. H. Harwood and B. A. Woodford), La Verne; 170 feet S. of Foothill Blvd., 100 feet W. of Wheeler Road. Use: Irrigation. Casing: 18 inches. Perforated 347-389; 403-423; 479-492.	4428B	1,115	*552	(e)	Oct., 1918			6	211	19	22	6	49	22	*6
C-676d-H-18	Phillips Estate, W. of Pomona; 110 feet S. of U. P. R. R., 220 feet N. of 2d Ave., 4,700 feet W. of White Ave., 40 feet E. of concrete reservoir. Use: Irrigation. U. S. D. A. analysis on 8/22/31 is duplicate of D. W. R. Lab. No. 471.	3224	818	x	471 (e)	10/22/31 10/22/31	39.0 38.3	0.08 0.06	16 18	192 204	9 9	20 19	11 15	51 52	12 11	15 17
C-700c-I-16	Calendri & Marengo, E. of Puente; 830 feet N. of Valley Blvd., 1.05 miles E. of Pass and Covina Road. Use: Irrigation and domestic. Casing: 12 inches. Gravel 12-28; 88-90; 104-106; 158-160. U. S. D. A. analysis on 8/22/31 is duplicate of D. W. R. Lab. No. 234.	3099B	405	*201	234 (e)	8/21/31 8/21/31	117.7 118.0	0.19	35 37	*326 345	80 75	243 239	16 18	101 98	44 40	109 110
C-704j-H-18	W. K. Kellogg, Well 2, W. of Pomona; 20 feet N. of San Jose Wash, 4,000 feet NE. of Collins St., 0.5 miles NW. of Valley Blvd. Use: Domestic. Gravel 66-80; 93-99; 192-195; 215-215.	3194	731	*231	362	9/26/31	54.3	0.09	21	232	18	69	4	61	18	23
C-705d-I-17	Reuther-Graham Feed Yards, SW. of Spadra; 60 feet E. of ranch road to Reuther-Graham Feed Yards, 145 feet S. of S. P. R. R., 4,300 feet NE. of Brea Canyon Road. Use: Domestic and stock. Gravel 42-60; 65-85.	3177A	613	*89	364	9/26/31	68.7	0.31	17	259	23	110	9	84	22	29
C-705e-I-17	Currier Ranch, SW. of Spadra; 200 feet S. of S. P. R. R., 1,400 feet SE. of Valley Blvd., 3,300 feet NE. of Brea Canyon Road. Use: Irrigation.	3167B	604	-----	363	9/26/31	66.5	0.37	-----	256	23	-----	-----	-----	-----	-----
C-7100b-I-15	Victoria Mutual Water Co., Well 3, S. of Puente; 0.20 miles W. of Puente Road, 90 feet N. of U. P. R. R. Use: Irrigation. (Casing: 16 inches. Gravel 28-82; 155-185; 208-270.	3048A	327	*500	242	8/21/31	103.9		29	387	50	175	18	103	40	78

\* Log in files of Division of Water Resources.

x Water levels in files of Division of Water Resources.

a Includes small equivalent quantity of Carbonate (CO<sub>3</sub>).b Sulphate (SO<sub>4</sub>) determined by turbidity method.

c Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.

d Analysis by California State Department of Public Health, Bureau of Sanitary Engineering.

e Analysis by University of California, Graduate School of Tropical Agriculture and Citrus Experiment Station, Riverside, California.

f Analysis by Los Angeles Testing Laboratory, Los Angeles.

g Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.



TABLE 5. SURFACE WATERS IN UPPER SAN GABRIEL VALLEY

Number	Location and description	Location number	Elevation of ground	Discharge in second-feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
S5127-D-11	Arroyo Seco, NW. of Pasadena. Sampled at U. S. G. S. gaging station near south line of Sec. 30, T.12N., R.12W., S. B. & M. (unsurveyed), 1.5 miles above mouth of Millard Canyon and opposite U. S. Forest Service warehouse. Discharge from U. S. G. S. Note: Discharge less than 0.1 second feet on days for which no discharge is given.	S5127	1,450	0.2 3.3 2.8 39 9 3.7 2.7 1.3 0.1 0.2 0.2 0.4 50 10	109 398 645 735 815 912 985 1093 1161 1279 1493 1545 1617 1725 1821	7/ 2/31 12/14/31 1/19/32 2/16/32 3/14/32 4/15/32 5/15/32 6/15/32 7/15/32 8/15/32 10/15/32 11/15/32 12/15/32 1/16/33 2/15/33	45.2 44.6 41.7 26.1 33.0 37.2 40.2 43.5 47.0 45.3 49.4 49.9 50.9 32.4 33.8	0.28 0.28 0.08 0.10 0.21 0.18 0.20 0.41 0.34 0.47 0.52 0.56 0.30 0.18	24 17 ----- ----- 18 ----- ----- 20 ----- ----- 21 ----- ----- ----- ----- -----	244 229 214 125 180 189 232 232 247 271 251 272 162 168	9 11 6 7 6 9 12 14 12 16 16 5	19 39 ----- ----- 24 ----- ----- 24 ----- ----- 19 ----- ----- -----	0 0 ----- ----- Tr. ----- ----- 0 ----- ----- 0 ----- ----- -----	46 51 ----- ----- 44 ----- ----- 52 ----- 53 ----- ----- -----	18 18 ----- ----- 15 ----- ----- 19 ----- ----- ----- -----	27 20 ----- ----- 17 ----- ----- 24 ----- ----- 27 ----- -----
S5179-E-12	Rubio Canyon Land and Water Company. N. of Altadena. Rubio Canyon water from tunnels in canyon and surface flow sampled at reservoir from pipe line discharging into company's reservoir. All gravity water. Use: Irrigation.	S5179	1,750	-----	486	10/26/31	33.1	0.09	18	189	4	13	Tr.	41	12	16
S4090-E-12	Eaton Creek. Sampled at Pasadena Water Department intake just above U. S. G. S. gaging station near line between Secs. 2 and 11, T.1N., R.12W., S. B. & M., at mouth of canyon just above Mount Wilson toll bridge and 4 miles NE. of Pasadena. Use: Municipal.	S4090	1,220	4	819	3/16/32	27.4	0.21	11	149	7	11	0	33	14	8
S4103-E-13	Big Santa Anita Creek. E. of Sierra Madre. Sampled from stand-pipe on N. line of Grandview Ave. in center of Santa Anita Ave. Release from storage for irrigation.	S4103	800	-----	108 219 284 436 595	7/ 2/31 8/12/31 9/10/31 10/16/31 12/14/31	29.2 31.8 31.7 31.7 35.5	----- ----- 0.11 0.11 0.16	18 13 ----- ----- 15	171 186 183 180 198	4 6 8 5 18	9 10 10 ----- 18	----- Tr. Tr. ----- 4	35 38 35 ----- 41	12 17 17 ----- 16	14 ----- ----- ----- 14
S4212-E-14	Sawpit Creek at Sawpit Dam. N. of Monrovia. In NW¼ of NE¼, Sec. 13, T.1N., R.11W., S. B. & M. Sampled from lowest needle gate valve.	S4212	1,240	-----	106	7/ 3/31	52.8	-----	17	274	11	46	0	65	19	23
S4203-E-14	Sawpit Creek. N. of Monrovia. Sampled at U. S. G. S. gaging station in SW¼, SW¼, Sec. 13, T.1N., R.11W., S. B. & M., three-eighths mile below junction of two main branches of creek. Discharge from U. S. G. S.	S4203	900	0.2	811	3/15/32	46.7	0.01	-----	241	-----	-----	-----	-----	-----	-----
S4273-E-16	Fish Creek. NE. of Duarte. Sampled at U. S. G. S. gaging station in SW¼ of SW¼, Sec. 15, T.1N., R.10W., S. B. & M., 0.75 miles above mouth of canyon. Discharge from U. S. G. S.	S4273	1,025	6	818	3/15/32	35.4	0.02	13	210	6	17	0	48	16	13
S4293-F-16	Rogers Creek. N. of Azusa. Sampled at U. S. G. S. gaging station in NW¼, NW¼, Sec. 23, T.1N., R.10W., S. B. & M., 0.5 miles above mouth of creek. Discharge from U. S. G. S.	S4293	780	4.4	814	3/15/32	42.7	0.04	11	247	9	29	0	58	19	13
S4294-F-16	Southern California Edison Co.'s Canal. N. of Azusa; 0.6 miles N. of Sierra Madre Ave., 300 feet E. of San Gabriel Canyon Road. Sampled from weir at Southern California Edison Co.'s power house. Canal intake on San Gabriel River in SE¼, SE¼, Sec. 31, T.2N., R.9W., 5 miles above weir. Use: Power development and irrigation. During rainy season part of water from power plant is wasted back in San Gabriel River. Discharge is controlled discharge of San Gabriel River and Southern California Edison Co.'s canal from W. S. P. No. 721 and U. S. G. S. unpublished data.	S4294	745	23 12.8 10.4 11.2 58 82 764 337 219 168 105 62 36 23 23 22 38 220 120	113 220 283 437 596 650 733 812 913 982 1089 1164 1275 1402 1492 1546 1614 1706 1817	7/ 3/31 8/12/31 9/10/31 10/16/31 12/14/31 1/18/32 2/15/32 3/15/32 4/15/32 5/17/32 6/14/32 7/14/32 8/16/32 9/13/32 10/15/32 11/15/32 12/15/32 1/17/33 2/16/33	35.2 35.8 39.4 36.7 37.8 34.7 27.8 30.2 29.6 29.7 31.6 30.7 34.5 34.2 34.3 36.3 37.0 33.4	----- ----- 0.04 0.07 0.09 0.09 0.02 0.06 0.11 0.05 0.10 0.08 0.07 0.12 0.22 0.11 0.10 0.12	16 12 11 ----- 11 ----- 15 15 10 ----- ----- ----- 13 ----- 11 ----- ----- 17	192 192 192 198 207 198 155 174 168 177 186 180 180 195 198 143 177	2 4 2 2 4 6 2 2 0 4 2 2 2 2 2 2 2 2	27 31 30 ----- 31 ----- ----- ----- 13 ----- ----- ----- 25 ----- 27 ----- ----- -----	0 Tr. Tr. ----- 0 ----- ----- ----- Tr. ----- 1 ----- ----- -----	46 48 45 ----- 51 ----- ----- ----- 42 ----- 44 46 ----- ----- -----	15 16 16 ----- 13 ----- ----- ----- 10 ----- 13 ----- ----- 29	38 12 10 ----- 11 ----- ----- ----- 7 ----- ----- ----- -----
S4383-F-18	Big Dalton Creek. NE. of Glendora. Sampled just below Big Dalton Dam in SW¼ of SE¼, Sec. 15, T.1N., R.9W., S. B. & M. Use: Release from storage. Stream at U. S. G. S. gaging station is dry.	S4383	1,450	-----	1090	6/21/32	62.6	0.07	17	332	21	42	1	68	29	28



TABLE 5. SURFACE WATERS IN UPPER SAN GABRIEL VALLEY—Continued

Number	Location and description	Location number	Elevation of ground	Discharge in second-foot	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate (HCO <sub>3</sub> )	Chloride (Cl)	Sulfate (SO <sub>4</sub> )	Nitrate (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
S4373-F-17	Big Dalton Creek, NE. of Glendora. Sampled at U. S. G. S. gaging station, at center of Sec. 21, T. 1N., R. 9W., S. 8 B. & M., ¼ mile above mouth of canyon. Discharge from U. S. G. S.	S4373	1,150	0.2 23 1 0.1 0.05 0.9 0.3	645 732 810 916 983 1726 1818	1/18/32	80.0	0.06		345	28					
						2/15/32	40.3	0.04	19	204	13	34	1	43	19	20
						3/3/32	62.8	0.02		290	20					
						4/15/32	76.9	0.10	26	345	25	115	0	82	32	54
						5/13/32	84.9	0.06		363	26					
						12/20/33	71.8	0.10		265	30					
S4425 F 18	San Dimas Creek, NE. of San Dimas. Sampled at U. S. G. S. gaging station in SW¼ of NE¼ of Sec. 25, T. 1N., R. 9W., S. 8 B. & M., at mouth of canyon on W. side of San Dimas Canyon Road, 200 feet above junction with road from east. Discharge from U. S. G. S.	S4425	1,245		105 285 440 507 649 730 813 914 984 1091 1163 1278 1405 1491 1545 1615 1703 1819	7/3/31	65.9		24	324	18	77	0	67	28	41
						9/10/31	75.7	0.03	21	345	18	85	0	73	33	
						10/16/31	72.7	0.08		354	20					
						12/14/31	80.9	0.10	22	381	27	112	1	86	37	47
						1/18/32	66.4	0.11		333	20					
						2/15/32	49.7	0.06		241	16					
						3/15/32	56.7	0.12		290	20					
						4/15/32	53.7	0.14	18	290	13	40	0	58	27	25
						5/13/32	57.4	0.08		302	14					
						6/15/32	59.7	0.10		314	16					
						7/14/32	63.2	0.10	20	336	16	49	Tr.	66	30	33
						8/16/32	68.1	0.10		338	21					
						9/13/32	69.8	0.15		335	20					
						10/15/32	70.1	0.14		357	16					
						11/15/32	72.3	0.14	21	357	20	73	0	74	33	39
						S2926A-I-13	Sycamore Canyon Creek, SW. of El Monte in Whittier Narrows. Sampled at bridge in Texas Oil Co. field, 150 feet NE. of San Gabriel Blvd. and 400 feet NW. of Lincoln Ave. Principally oil well refuse.	S2926	210	3.6	1703 1819	1/17/33	75.7	0.10		339
2/16/33	53.7	0.10		259	12											
3/14/32	231	1.38	59	583	460							91	0	99	54	315
S2930-I-13	Rio Hondo, SW. of El Monte in Whittier Narrows; 600 feet NE. of San Gabriel Blvd., 1,000 feet upstream from Mission bridge; 200 feet upstream from mouth of Sycamore Canyon Creek. Rising water mixed with treated sewage effluent. Sampled from W. bank at L. A. C. F. C. D. gaging station 64. Discharge from L. A. C. F. C. D.	S2926A	198	12.80 15.65 5.38 4.3 91.0 22.0 243.6 48.8 20.6 16.4 9.0 16.4 14.3 22.5 26.0 38.0 353 15 +	47 223 297 422 590 644 721 803 917 1043 1155 1367 1474 1539 1574 1681 1704 1811	6/13/31	63.8		38	250	66	23	18	48	21	58
						8/13/31	65.2		41	186	87	28	9	47	13	62
						9/15/31	63.6	0.23	43	165	76	23	11	41	17	60
						10/13/31	62.5	0.28		229	69					
						12/14/31	69.0	0.19	37	210	87	22	7	52	17	53
						1/20/32	67.9	0.24		247	73					
						2/15/32	36.7	0.09		168	20					
						3/14/32	53.1	0.15		189	48					
						4/19/32	64.5	0.35	47	198	73	29	16	43	16	70
						6/16/32	69.2	0.39		183	83					
						7/20/32	66.0	0.30		192	77					
						9/12/32	64.9	0.30	42	186	67	24	34	45	14	56
						10/11/32	67.1	0.43		180	73					
						11/19/32	62.3	0.31		186	69					
						12/10/32	62.2	0.29	40	235	57	27	7	43	16	53
						S2937-I-13	Slough in Whittier Narrows, SW. of El Monte. Sampled at L. A. C. F. C. D. gaging station 83, at San Gabriel Blvd. crossing, 300 feet E. of Mission Bridge over Rio Hondo. Rising water.	S2937	197	16.03 14.04 13.54 12.07 13.50 19.00 18.50 19.25 18.75 16.25 15.50 16.25 16.5 16.8 16.6 17.5 19	46 123 294 423 591 646 722 804 918 1044 1156 1265 1368 1475 1540 1575 1682 1812	6/13/31	36.0		19	214
7/13/31	36.0		28	198	9							14	4	43	9	27
8/13/31	36.0		20	195	7							14	2	44	14	20
9/15/31	36.2	0.05	20	192	5							11	2	44	14	20
10/13/31	37.0	0.09		204	7											
12/14/31	37.4	0.07	21	198	9							15	2	44	12	19
1/20/32	36.9	0.14		204	9											
2/15/32	38.4	0.16		204	9											
3/14/32	37.1	0.09		201	9											
4/19/32	36.8	0.11	23	198	7							14	4	45	11	22
6/16/32	37.1	0.08		198	9											
7/20/32	36.9	0.09		195	7											
9/12/32	37.9	0.05	18	198	9							4	2	48	11	17
10/11/32	37.6	0.17		195	7											
11/19/32	36.4	0.19		198	7											
12/10/32	38.8	0.17	19	192	7							17	2	43	13	17
1/13/33	36.7	0.10		195	9											
2/28/33	37.4	0.10		195	7											



TABLE 5. SURFACE WATERS IN UPPER SAN GABRIEL VALLEY—Continued

Number	Location and description	Location number	Elevation of ground	Discharge in second-foot	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate (HCO <sub>3</sub> )	Chloride (Cl)	Sulfate (SO <sub>4</sub> )	Nitrate (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
S2947-1-13	San Gabriel River, SW of El Monte in Whittier Narrows, Sampled from Cate Ditch at end of Syphon Road, 0.7 miles SE of Purlee Road. Intake of ditch is 1,600 feet upstream. Use: Irrigation. Discharge is combined discharge of Cate Ditch, Stander Ditch, and San Gabriel River below Stander Ditch from L. A. C. F. C. D.	S2947	205	20	45	6/13/31	40.0	-----	35	262	11	27	4	30	18	40
				13	122	7/13/31	47.3	-----	18	250	9	31	6	43	15	22
				14	225	8/13/31	44.8	-----	11	247	2	21	1	68	17	13
				15	295	9/15/31	35.8	0.09	11	192	2	21	1	48	13	10
				17	424	10/13/31	40.1	0.15	9	253	9	29	2	66	16	11
				25	582	12/14/31	47.6	0.05	12	247	11	38	2	69	10	15
				27	647	1/20/32	45.1	0.16	-----	241	9	-----	-----	-----	-----	-----
				27	723	2/15/32	47.9	0.08	-----	247	11	-----	-----	-----	-----	-----
				30	805	3/14/32	36.0	0.15	-----	201	4	-----	-----	-----	-----	-----
				29	919	4/10/32	37.0	0.14	8	204	5	20	1	52	13	78
				22	1045	6/16/32	36.0	0.03	-----	192	5	-----	-----	-----	-----	-----
				23	1157	7/20/32	50.4	0.05	11	265	7	39	1	72	16	14
				19	1369	9/12/32	50.7	0.30	9	268	7	20	2	74	16	12
				25	1476	10/11/32	52.3	0.12	-----	265	12	-----	-----	-----	-----	-----
				24	1541	11/19/32	37.0	0.10	-----	198	4	-----	-----	-----	-----	-----
				30 +	1576	12/10/32	55.8	0.10	7	259	20	51	1	76	18	10
				26	1683	1/13/33	50.8	0.08	-----	244	9	-----	-----	-----	-----	-----
				90 +	1705	1/20/33	34.2	0.08	-----	152	7	-----	-----	-----	-----	-----
				31	1813	2/28/33	50.2	0.09	-----	241	4	-----	-----	-----	-----	-----
S2967-1-13	San Jose Creek, S. of El Monte, Sampled at L. A. C. F. C. D. gaging station 48, 200 feet upstream from Workman Mill Road bridge. Discharge from L. A. C. F. C. D.	S2967	225	0.30	272	9/ 2/31	83.1	0.15	29	360	32	114	0	86	28	62
				0.34	425	10/13/31	77.8	0.15	28	351	23	104	Tr.	82	27	55
				0.17	563	12/14/31	82.2	0.11	29	271	41	152	6	78	28	57
				0.60	652	1/20/32	97.6	0.20	-----	357	48	-----	-----	-----	-----	-----
				5.10	724	2/15/32	54.0	0.18	-----	168	30	-----	-----	-----	-----	-----
				0.25	806	3/14/32	94.8	0.13	-----	320	45	-----	-----	-----	-----	-----
				0.28	920	4/19/32	91.7	0.16	29	363	32	163	0	101	29	68
				0.15	1046	6/16/32	98.3	0.16	-----	324	48	-----	-----	-----	-----	-----
				0.1	1477	10/11/32	100.0	0.20	29	372	43	174	0	97	41	79
				0.2	1577	12/10/32	101	0.19	31	375	44	191	0	99	37	81
				6.8	1702	1/20/33	40.4	0.12	-----	137	20	-----	-----	-----	-----	-----
				0.2	1814	2/28/33	86.4	0.14	-----	327	36	-----	-----	-----	-----	-----
S3100-G-15	Los Angeles County Flood Control District, Puddingstone Reservoir, S. of San Dimas, Sampled 200 feet out in reservoir from Dam 1. Use: Storage for irrigation	S3100	950	-----	877	4/15/32	22.6	0.05	27	98	7	22	4	23	7	15
				-----	878	4/15/32	22.1	0.04	-----	98	6	-----	-----	-----	-----	-----
				-----	928	5/ 2/32	22.9	0.08	-----	104	7	-----	-----	-----	-----	-----
				-----	1060	6/10/32	24.8	0.05	22	113	6	25	Tr.	26	11	15

<sup>a</sup> Includes small equivalent quantity of Carbonate (CO<sub>3</sub>).



TABLE 6. WELLS AND SURFACE WATERS IN SAN TIMOTEO AREA

Well number	Location and description	Location number	Eleva- tion of ground in feet	Total depth of well in feet	Labora- tory number	Date	Specific elec- trical conduc- tance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	(constituents (parts per million))						
										Bicar- bonate radicle (HCO <sub>3</sub> )	Chlo- ride radicle (Cl)	Sul- phate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Mag- nesium (Mg)	Sodium (Na)
E-103-H-28	Dr. J. J. Weir, Loma Linda; 200 feet S. of Prospect Ave., 360 feet W. of Benton Ave. Use: Domestic and irrigation. Perforated 20-260.	18044B	1,150	280	1219	8/ 4/32	91.2	0.29	65	348	67	46	45	41	16	145
E-104-H-28	Clifford T. Norwood, Bryn Mawr; 20 feet W. of Mountain Ave., extended, 30 feet S. of Bryn Mawr Ave., extended, 0.62 miles S. of Barton Ave. Use: Irrigation. Casing: 14 inches. Perforated 200-633; 677-693; 721-761.	18056	1,312	*765	1241	8/ 5/32	57.5	0.07	77	165	67	42	2	17	6	100
E-107k-H-29	Bryn Mawr Water Co., Well 1, Bryn Mawr; 75 feet S. of S. P. R.R., 600 feet W. of California St. Use: Irrigation. Casing: 14 inches. Perforated 200-348; 354-398.	18075D	1,215	*554	1221	8/ 5/32	78.5	0.01	43	336	39	60	27	58	24	83
E-112g-I-29	H. L. Hubbard, SW. of Redlands; 800 feet SE. of San Timoteo Canyon Road and S. P. R.R. crossing, 2,400 feet SW. of San Timoteo Road, 760 feet E. and 330 feet N. of SW. corner of Sec. 4, T.2S., R.3W., S. B. B. & M. Use: Irrigation. Casing: 14 inches.	18097D	1,430	(x)	1225	8/ 5/32	81.4	0.04	49	403	50	38	2	48	27	102
E-112h-I-29	Chas. H. Ciocke, SW. of Redlands; 75 feet S. of S. P. R.R., 800 feet W. of Redlands City limits, 1,000 feet NW. of Redlands S. P. R.R. depot, in San Timoteo Canyon Use: Irrigation. Casing: 14 inches. Perforated 125-475; 522-549.	18086A	1,295	*568	1223	8/ 5/32	73.0	0.04	46	327	41	53	7	49	22	84
E-120f-H-30	City of Redlands, Well 5 (formerly Redlands Water Co., Well 2), Redlands; 300 feet SE. of Crescent Ave., 400 feet NE. of Roosevelt St. (State Highway), 500 feet NE. of reservoir. Use: Municipal. Casing: 10 inches. Gravel 110 150, 164 200; 206 220; 284 292; 344 360; 390 400, 40, 410; 420 424, 450 452; 490-506.	18135D	1,532	*x510	(d)	4/15/31				220	16	b25				
E-120i-H-30	City of Redlands, Well 11, Redlands; 800 feet SE. of Crescent Ave., 300 feet NE. of Roosevelt St. (State Highway). NW. well. Use: Municipal. Casing: 18 inches. Gravel 101 131; 152 174, 190 194; 291-298; 370-390; 498-514.	18135H	1,565	*x687	(d) 1229	4/15/31 8/ 4/32	40.2	0.05	43	195 180	20 20	b38 24	9	34	10	41
E-120k-H-30	City of Redlands, Well 12, Redlands; 1,000 feet SE. of Crescent Ave., 50 feet NE. of Roosevelt St. (State Highway), E. of reservoir. Use: Municipal. Casing: 20 inches. Gravel 98-124; 203-296; 302-330.	18135I	1,568	*x347	(d) 1230	4/15/31 8/ 4/32	44.1	0.01	32	217 195	18 20	b23 26	13	41	14	34
E-120m-H-30	City of Redlands, Well 16, Redlands; 0.3 miles SE. of Crescent Ave., 50 feet NE. of Roosevelt St. (State Highway), E. of reservoir. Use: Municipal. Casing: 20 inches. Gravel 170-206; 238 280, 320 326; 349 352.	18135K	1,572	*x414	(d)	4/15/31				195	18	b27				
E-122b-I-30	Frank Mulvihill, S. of Redlands; 15 feet SW. of San Timoteo Road, 170 feet NW. of Live Oak Canyon Road. Use: Domestic. Casing: 7 inches. W. S. P. 142, No. 36, Redlands Quadrangle.	18139A	1,553	x 96	1231	8/ 5/32	78.0	0.04	44	348	43	76	1	54	26	87
E-130-I-31	Lower Yucaipa Water Co. SE. of Redlands; 500 feet N. of Live Oak Canyon Road, 1.3 miles SE. of State Highway, 30 feet W. of center line of Sec. 8, T.2S., R.2W., S. B. B. & M. Use: Irrigation. Casing: 12 inches.	18188	1,909	x210	1196	7/21/32	54.4	0.06	33	290	21	20	2	53	17	46
E-130b-I-31	Daniel Webster, SE. of Redlands; 0.4 miles W. of E. line of Sec. 7, T.2S., R.2W., S. B. B. & M., 0.28 miles W. of Live Oak Canyon Road bridge, 400 feet S. of Live Oak Canyon Road and 100 feet S. of S. bank of creek. Use: Irrigation. Casing: 12 inches.	18179A	1,553	244	1195	7/21/31	53.7	0.01	37	268	27	25	1	48	16	49
E-132h-H-32	South Mountain Water Co., Well 3, W. of Yucaipa; 75 feet N. of Yucaipa Blvd., 300 feet E. of 12th St. Use: Irrigation. Casing: 20 inches. Perforated 126-610.	18216D	2,155	*x048	1197	7 21 32	46.2	0.03	21	244	13	24	8	57	16	25
E-133-I-31	Western Heights Water Co., Well 5, W. of Yucaipa; 60 feet S. of Ave. E, 0.1 miles W. of 12th St. Use: Irrigation. Casing: 10 inches.	18217	2,097	x788	1238	8/ 5/32	42.8	0.01	17	235	9	18	4	57	13	19
E-133a-I-31	Western Heights Water Co., Well 4, W. of Yucaipa; 40 feet S. of Ave. E, 450 feet E. of 15th St. Use: Irrigation. Casing: 12 inches. Gravel 105 110, 320 329; 382 385; 400 530.	18207	2,074	*x537	1237	8/ 5/32	44.1	0.01	21	238	9	25	4	57	13	24
E-135b-I-32	J. B. Hundley, Yucaipa; 500 feet S. of Yucaipa Blvd., 15 feet W. of 7th St. Use: Irrigation. Casing: 12 inches.	18236	2,407	x345	1200	7/21/32	41.1	0.03	18	223	11	17	6	52	14	18



TABLE 6. WELLS AND SURFACE WATERS IN SAN TIMOTEO AREA. Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
E-135e-H-32	Crafton-Macy Water Co. W. of Yucapita; 15 feet N. of Yucapita Blvd., 300 feet W. of Dakota Place. Use: Irrigation. Casing: 22 inches.	18226B	2,255	450	1198	7/21/32	42.4	0.03	16	229	9	10	6	54	14	17
E-136d-I-32	Redlands-Yucapita Land Co., Dairy Ranch Well. SW. of Yucapita; 200 feet N. of Riverside County Line 0.8 miles W. of State Highway, in S <sup>1</sup> / <sub>2</sub> Sec. 10, T.2S., R.2W., S. B. B. & M. Use: Irrigation. Casing: 20 inches. Perforated 140-378.	18229C	2,247	*x403	1199	7/21/31	50.9	0.03	29	278	20	22	3	53	17	38
E-136i-I-32	South Mesa Water Co., Well 11. SW. of Yucapita; 150 feet W. of State Highway, 10 feet S. of County Line Road. Use: Irrigation. Casing: 16 inches. Perforated 205-383.	18239A	2,392	*x443	1201	7/21/32	47.4	0.07	32	226	16	28	6	46	15	39
E-138 I-32	Yucapita Water Co., No. 1, Well 12. Yucapita; 15 feet N. of Ave. F, 600 feet W. of 5th St. Use: Irrigation. Casing: 16 inches. Gravel 155-172; 202-240; 269-286; 300-315; 360-378; 398-464.	18248	2,420	*x464	1202	7/21/32	42.8	0.10	22	223	11	25	4	51	11	23
E-138b-I-32	South Mesa Water Co., Well 6. S. of Yucapita; 200 feet N. of Ave. H, 40 feet E. of 4th St., extended. Use: Irrigation. Casing: 16 inches.	18248B	2,471	x406	1203	7/21/32	42.6	0.07	42	186	16	34	11	37	10	45
E-138c-I-32	South Mesa Water Co., Well 4. S. of Yucapita; 300 feet S. of Ave. L on E. line of 4th St., extended. Use: Irrigation. Casing: 16 inches. Gravel 188-206; 208-218; 220-222; 310-316; 338-360; 362-368.	18249A	2,453	*x497	1204	7/21/32	48.1	0.05	30	244	27	12	4	43	19	38
E-139-II-32	Triple Falls Water Co., Well 2. N. of Yucapita; 20 feet W. of 2d Ave., 0.23 miles N. of Center St. Use: Irrigation. Casing: 16 inches.	18263	2,842	x650	1242	8/ 5/32	47.4	0.09	39	223	9	38	7	45	11	46
E-139a-II-33	Section 30 Mutual Water Co. N. of Yucapita; 0.37 miles S. of Carter St., 40 feet E. of 2d Ave. Use: Irrigation. Casing: 16 inches. Gravel 268-292; 294-318; 324-330; 334-358; 376-381; 400-414.	18264	2,817	*x420	1243	8/ 5/32	60.4	0.07	33	296	11	51	8	64	16	50
E-139f-II-32	R. T. Clyde, Well 2. N. of Yucapita; 1300 feet W. of 2d Ave., 440 feet S. of 1st St., extended. Use: Irrigation. Casing: 16 inches.	18264C	2,760	398	1244	8/ 5/32	58.1	0.09	38	277	11	58	7	57	13	56
E-140d-II-33	G. J. Trowbridge. Yucapita; 1,000 feet N. of D St., 475 feet W. of Pendleton Ave. Use: Domestic and irrigation. Casing: 16 inches. Perforated 275-283; 296-323.	18275	2,980	*383	1245	8/ 5/32	49.2	0.07	25	247	14	32	4	56	14	30
E-141-I-33	Yucapita Water Co. No. 1, Well 9. SE. of Yucapita; 70 feet S. of Ave. F, 0.15 miles E. of 10th Ave. In Hog Canyon. Use: Irrigation. Casing: 16 inches. Perforated 50-129.	18288	2,812	*x145	1205	7/21/32	47.8	0.05	27	244	16	Tr.	4	49	16	33
E-141b-I-33	Yucapita Water Co. No. 1, Wildwood Mesa Well. SE. of Yucapita; 700 feet S. of Ave. F, 600 feet E. of 10th Ave., extended due S. from Ave. F. On top of mesa. Use: Irrigation.	18288B	2,860	-----	1206	7/21/32	49.0	0.06	26	259	18	20	4	51	18	33
E-145b-I-34	Beaumont Irrigation District, Well 20. N. of Beaumont, 6,700 feet N. along Oak Glen Road from junction with Hog Canyon Road, 50 feet SW. of W. Ranch Road, 150 feet E. of creek; 1,100 feet N. and 1,900 feet E. of SW. corner of Sec. 2, T.2S., R.1W., S. B. B. & M. Use: Irrigation. Casing: 16 inches. Perforated 18-72.	18347	4,291	*x197	1208	7/20/32	36.1	0.06	15	198	6	22	1	42	16	14
E-146d-I-34	Beaumont Irrigation District, Well 19. N. of Beaumont, 2.6 miles N. along Oak Glen Road from Orchard St., 150 feet E. of Edgar Creek, 50 feet E. of Well 6; 1,700 feet N. and 200 feet W. of SE. corner of Sec. 10, T.2S., R.1W., S. B. B. & M. Use: Irrigation. Casing: 16 inches. Perforated 49-255.	18383D	3,660	*x270	1207	7/20/32	39.6	0.02	18	217	7	22	2	46	16	18
E-223-J-30	J. H. Stewart. SE. of Redlands; 100 feet NE. of S. P. R.R., 200 feet NE. of San Timoteo Canyon Road, 0.76 miles SE. of Redland Blvd. Use: Irrigation. Casing: 20 inches. Perforated 75-111; 306-348; 374-396; 402-416; 462-476.	17251A	1,692	*x540	1177	7/21/32	108	0.11	57	457	87	81	0	62	23	156
E-227d-J-32	Charles Singleton. SE. of Redlands; 1,700 feet SW. of El Casco Bridge on San Timoteo Canyon Road, 100 feet SW. of E <sup>1</sup> / <sub>4</sub> corner of Sec. 28, T.2S., R.2W., S. B. B. & M. Use: Irrigation. Casing: 12 inches.	17313	2,044	x238	1179	7/21/31	55.3	0.07	78	*247	52	8	Tr.	17	5	104



TABLE 6. WELLS AND SURFACE WATERS IN SAN TIMOTEO AREA Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 at 25°C)	Boron ppm	Percent sodium Na x 100 (Ca + Mg + Na)	(Constituents (parts per million))						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
E-229a-J-32	W. D. Burns (formerly Tom Singleton), S. of Yucapira; 1,750 feet W. of the intersection of Burns Ave. and State Highway, 0.75 miles SE. of Ave. L, 800 feet NW. of Burns Ave., extended. Use: Irrigation and domestic. Casing: 16 inches. Perforated 130-163; 193-215; 601-653. U. S. D. A. analysis on 7-21-32 is duplicate of D. W. R. Lab. No. 1180.	17330A	2,294	*x686	1180 ( <sup>c</sup> )	7/21/32 7/21/32	42.4 42.4	Tr.	39 43	195 195	30 23	5 5	6 7	33 35	13 7	41 40
E-230b-J-32	J. S. Haskell, SE. of Redlands; 125 feet NE. of San Timoteo Canyon Road, 145 miles SW. of El Casco Bridge, 300 feet E. and 400 feet N. of SW. corner of Sec. 26, T. 2S., R. 2W., S. B. & M. Casing in water trough in feed yard. Use: Stock. Casing: 10 inches. U. S. D. A. analysis on 7/21/32 is duplicate of D. W. R. Lab. No. 1181. Wells artesian.	17333	2,113	x600	1181 ( <sup>c</sup> )	7/21/32 7/21/32	39.1 39.0	0.08	50 51	201 207	16 9	12 10	4 4	30 30	8 6	50 49
E-232-J-32	Dwight B. Cooper, S. of Yucapira; 200 feet NE. of State Highway, 1 mile SE. along State Highway from Ave. L. Use: Irrigation. Casing: 12 inches. Perforated 178-182; 295-216; 218-234; 236-254; 274-284. U. S. D. A. analysis on 7/21/32 is duplicate of D. W. R. Lab. No. 1182.	17341D	2,387	*x285	1182 ( <sup>c</sup> )	7/21/32 7/21/32	40.4 40.3	0.03	37 37	195 201	28 30	8 6	6 7	28 29	17 17	39 39
E-233-J-32	Moreno Mutual Irrigation Co., Well 5, S. of Yucapira; 1,120 feet SW. of State Highway, 670 feet SE. of Moreno Ave., extended, 915 feet W. of Well 3. Use: Irrigation. Casing: 16 inches. Gravel 95-286. U. S. D. A. analysis on 7/20/32 is duplicate of D. W. R. Lab. No. 1183.	17342	2,249	*x288	1183 ( <sup>c</sup> )	7/20/32 7/20/32	41.2 40.9	0.03	28 29	217 217	16 16	12 8	6 8	39 39	16 15	30 29
E-233b-J-32	Moreno Mutual Irrigation Co., Well 2, S. of Yucapira; 400 feet SW. of State Highway, 0.47 miles SE. of Moreno Ave. Use: Irrigation. Casing: 16 inches. Perforated 131-221; 290-360. U. S. D. A. analysis on 7/20/32 is duplicate of D. W. R. Lab. No. 1184.	17352D	2,257	*x387	1184 ( <sup>c</sup> )	7/20/32 7/20/32	35.9 36.1	0.01	26 26	201 204	9 11	12 8	4 7	38 38	13 13	24 24
E-236-J-33	C. L. Covington, NW. of Beaumont; 10 feet N. of Woodland Ave., 0.35 miles E. of State Highway. Use: Irrigation. Casing: 12 inches. U. S. D. A. analysis on 7/20/32 is duplicate of D. W. R. Lab. No. 1185.	17362	2,348	x220	1185 ( <sup>c</sup> )	7/20/32 7/20/32	37.4 37.4	Tr.	20 21	204 207	13 7	8 7	6 9	39 39	17 15	20 19
E-237-K-33	J. D. Huston, W. of Beaumont; 1,600 feet S. of San Timoteo Canyon Road, 0.41 miles E. of where San Timoteo Canyon Road crosses S. P. R.R. 2 miles W. of State Highway. Use: Domestic. Casing: 10 inches. U. S. D. A. analysis on 7/21/32 is duplicate of D. W. R. Lab. No. 1186.	17376	2,335	x72	1186 ( <sup>c</sup> )	7/21/32 7/21/32	39.7 39.1	0.01	38 34	189 192	27 27	1 1	6 11	35 36	12 12	38 23
E-240f-J-33	J. Vincent Hannon, NW. of Beaumont; 400 feet N. of Vineland St., on E. line of Union Ave., extended. Use: Irrigation. Casing: 16 inches.	17382C	2,717	x200	1178	7/21/32	42.2	0.02	31	204	25	13	6	32	20	33
E-241-J-33	L. T. Smith, NW. of Beaumont; 2,500 feet S. of Roach Ave., 1 mile W. of Nancy Ave., extended, 1,600 feet NW. of State Highway. Use: Irrigation and domestic. U. S. D. A. analysis on 7-21-32 is duplicate of D. W. R. Lab. No. 1187.	17394	2,491	x328	1187 ( <sup>c</sup> )	7/21/32 7/21/32	31.3 31.1	0.01	21 21	162 165	9 9	11 2	6 11	33 34	13 11	16 16
E-242-K-33	Nellie M. Wormley, W. of Beaumont; 250 feet N. of Jackrabbit Trail (San Geronimo Drive), 0.6 miles W. of S. P. R.R. Use: Irrigation. Casing: 12 inches. Gravel 384-388; 454-494.	17396	2,432	*x1300	( <sup>1</sup> ) 1188	Dec., 1923 7/21/32	----- 35.6	0.02	78	165 *182	59 21	----- 6	----- 2	----- 11	----- 4	----- 74
E-243j-J-33	Beaumont Irrigation District, Well 38, N. of Beaumont; 1,800 feet N. of Orchard St., 50 feet W. of Nancy Ave., extended. Use: Irrigation. Casing: 12 inches. Perforated 285-785. U. S. D. A. analysis on 7/20/32 is duplicate of D. W. R. Lab. No. 1189.	17401J	2,852	*811	1189 ( <sup>c</sup> )	7/20/32 7/20/32	53.9 53.3	0.02	37 37	253 256	28 28	39 36	2 2	41 41	20 21	50 50
E-254j-J-34	Beaumont Irrigation District, Well 30, N. of Beaumont; 25 feet N. and 700 feet E. from SW. corner of Sec. 14, T. 2S., R. 1W., S. B. & M., 50 feet E. of Edgar Creek. Use: Irrigation. Casing: 16 inches. Perforated 35-60; 70-75; 90-95; 112-176; 190-195; 206-287. U. S. D. A. analysis on 7/20/32 is duplicate of D. W. R. Lab. No. 1190.	17430H	3,180	*308	( <sup>c</sup> ) 1190 ( <sup>c</sup> )	3/28/29 7/20/32 7/20/32	41.5 40.4 40.2	----- 0.01	----- 20 19	214 220 223	11 11 11	10 20 19	----- 2 2	----- 46 47	19 15 16	----- 20 20
E-258-K-34	Richfield Oil Co., E. of Beaumont; 150 feet N. of State Highway, 0.27 miles E. of Glen Eyre Ave. Use: Domestic. Casing: 12 inches. Perforated 266-310; 344-350.	17456	2,580	*353	1191	7/20/32	39.5	Tr.	27	214	20	0	8	36	16	27



TABLE 6. WELLS AND SURFACE WATERS IN SAN TIMOTEO AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
E-238a-K-34	R. P. Stewart, SE. of Beaumont; 300 feet E. of Laurel Road (Glen Eyre Ave., extended), 0.58 miles S. of State Highway. Use: Domestic. Casing: 10 inches.	17457	2,544	x295	1192	7/20/32	23.9	0.05	34	113	14	0	8	20	10	21
E-250-K-34	R. P. Stewart, SE. of Beaumont; 200 feet E. of Laurel Road (Glen Eyre Ave., extended), 1.4 miles S. of State Highway. Use: Stock. Casing: 10 inches.	17459	2,478	x91	1193	7/20/32	34.0	0.03	29	186	13	1	6	44	10	28
S17462-J-34	Highland Springs Health Resort, NE. of Beaumont. Gravity water from springs in canyon NE. of hotel. Sampled at outlet to reservoir N. of hotel, 0.25 miles N. of Grand St. on line of Hillside Ave., extended. Use: Irrigation. Discharge: 0.13 second-feet.	S17462	3,200	-----	1194	7/20/32	20.1	0.03	25	98	6	2	8	19	9	13
S18347-I-34	Beaumont Irrigation District, Edgar Canyon Creek, N. of Beaumont. Gravity flow at weir, 900 feet N. and 1,900 feet E. of SW. corner of Sec. 2, T. 2S., R. 1W., S. B. & M., 200 feet S. of Well 1-143b, 1-34 (Owner's Well 20). Use: Irrigation. Discharge: 0.4 second-feet.	S18347	4,285	-----	1209	7/20/32	35.0	0.05	16	198	2	19	Tr.	39	14	14

\*Log in files of Division of Water Resources.

x Water levels in files of Division of Water Resources

<sup>a</sup> Includes small equivalent quantity of Carbonate (CO<sub>3</sub>).<sup>b</sup> Sulphate (SO<sub>4</sub>) determined by turbidity method.<sup>c</sup> Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.<sup>d</sup> Analysis by California State Department of Public Health, Bureau of Sanitary Engineering.<sup>e</sup> Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.<sup>f</sup> Analysis by University of California, Graduate School of Tropical Agriculture and Citrus Experiment Station, Riverside, California.



TABLE 7. WELLS AND SURFACE WATERS IN VENICE AREA

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
B-1a-I-5	United States Government Soldiers' Home, Well 11, Sawtelle; 125 feet W. of Sepulveda Blvd., 0.25 miles N. of Wilshire Blvd. Use: Domestic and irrigation. Casing: 12 inches.	2544	343	x300	180	7/30/31	94.5	-----	19	324	50	127	40	103	40	46
B-4-I-5	City of Santa Monica, Arcadia Plant, Well 1, NE. of Santa Monica; 40 feet S. of Wilshire Blvd., 50 feet E. of Bundy St. Use: Municipal, standby plant. Casing: 18 inches. Gravel to 95; 120-134; 138-170; from composite log of 5 wells in group.	2535B	244	*200	181	7/30/31	93.6	-----	21	259	48	212	2	87	46	51
B-5a-I-5	American States Water Service Co., Well 8, Venice; 800 feet NE. of Lincoln Blvd., 700 feet NW. of Lake St. Use: Not used. Casing: 20 inches. Gravel to 90; 111-123. L. A. C. F. C. D. analysis from sample 15 feet below surface of water. Lab. No. 1302 from bottom of well.	2539C	24	*200	(1) 1362	6/29/31 9/6/32	359	0.37	-----	100 277	1,044 916	-----	-----	-----	-----	-----
B-5b-I-5	City of Santa Monica, Marine New Well 5, Santa Monica; 215 feet SE. of Marine St., 160 feet SW. of 16th St., 20 feet from Old Well 5. Use: Municipal. Casing: 16 inches. Perforated 35-140.	2539D	24	*204	(1) (4) 177	6/13/31 7/17/31 7/30/31	-----	-----	-----	276 308 277	135 81 119	108 178	0	97	51	69
B-5d-I-5	Francisco M. Cota, SE. of Santa Monica; 140 feet W. of 23d St., 20 feet S. of Dewey St. Use: Irrigation.	2540A	35	-----	(1) (1)	6/13/31 4/30/32	-----	-----	-----	304 328	46 57	-----	-----	-----	-----	-----
B-5e-I-5	American States Water Service Co., Well 6, Venice; 1,025 feet NE. of Lincoln Blvd., 240 feet NW. of Vernon St. Use: Not used. Casing: 18 inches. Perforated 47-105. Sampled from bottom of well.	2530A	22	*140	1363	9/6/32	473	0.18	-----	201	1,200	-----	-----	-----	-----	-----
B-5g-I-5	City of Santa Monica, Marine Well 1, Santa Monica; 340 feet SE. of Marine St., 200 feet SW. of 16th St. Use: Municipal. Casing: 18 inches. Perforated 28-100.	2539E	23	*182	(4)	7/17/31	-----	-----	-----	288	276	b130	-----	-----	-----	-----
B-5h-I-5	City of Santa Monica, Marine New Well 2, Santa Monica; 390 feet SE. of Marine St., 25 feet SW. of 16th St., 18 feet from Old Well 2. Use: Municipal. Casing: 16 inches. Gravel to 80; from log of Old Well 2.	2539F	23	200	(4) 891	7/17/31 3/25/32	153	0.22	24	332 308	97 220	b160 255	Tr.	149	64	90
B-5j-I-5	City of Santa Monica, Well 4, Santa Monica; 50 feet SE. of Marine St., 350 feet SW. of 16th St. Use: Municipal. Casing: 18 inches. Perforated 23-115.	2539H	25	*139	(4)	7/17/31	-----	-----	-----	208	84	b92	-----	-----	-----	-----
B-7-I-6	L. F. Arnold, SE. of Sawtelle; 375 feet SE. of Sawtelle Blvd., 50 feet SW. of Richland Ave. Use: Irrigation and domestic. Casing: 14 inches. Gravel 220-230, 314-334.	2568A	141	*380	176	7/30/31	69.6	-----	29	247	38	115	4	87	32	54
B-8a-I-6	American States Water Service Co., Pacific Plant, Well 1, SW. of Culver City; 75 feet SE. of Pacific Ave., 120 feet NE. of Wasatch Ave., 50 feet N. of Well 2. Use: Municipal. Casing: 16 inches. Gravel 177-195.	2569	56	*225	(1) (1) 178	10/7/30 6/8/31 7/30/31	-----	-----	-----	289 293 296	59 71 73	-----	-----	-----	42	62
B-9a-I-6	American States Water Service Co. (formerly Peoples Water Co.), Plant 1, Well 3, Palms; 20 feet SW. of Manning Ave., 175 feet SE. of Woodbine St. Use: Domestic. Casing: 16 inches. Gravel 125-137; 173-179.	2596	179	*263	(4)	4/20/32	-----	-----	-----	345	65	b50	-----	-----	-----	-----
B-10d-I-6	City of Santa Monica, Charnock Well 1, E. of Santa Monica; 467 feet SW. of Sawtelle Blvd., 171 feet NW. of Westminster Ave., 140 feet SW. of Cornth Ave. Use: Municipal. Casing: 18 inches. Perforated 98-104, 140-170, 176-182, 197-209, 227-245, 300-362, 350-380.	2578D	100	*388	(4)	7/17/31	-----	-----	-----	278	67	b123	-----	-----	-----	-----
B-10e-I-6	City of Santa Monica, Charnock Well 2, E. of Santa Monica; 705 feet SW. of Sawtelle Blvd., 151 feet NW. of Westminster Ave., 71 feet SW. of Purdue Ave. Use: Municipal. Casing: 18 inches. Perforated 104-117, 183-203, 230-365, 335-353.	2578E	98	*393	(4)	7/17/31	-----	-----	-----	288	56	b132	-----	-----	-----	-----
B-10f-I-6	City of Santa Monica, Charnock Well 3, E. of Santa Monica; 825 feet SW. of Sawtelle Blvd., 160 feet NW. of Westminster Ave., 67 feet SE. of Butler Ave. Use: Municipal. Casing: 18 inches. Perforated 100-106, 162-170, 172-200, 260-300, 327-340.	2578F	95	*386	(4)	7/17/31	-----	-----	-----	273	76	b150	-----	-----	-----	-----



TABLE 7. WELLS AND SURFACE WATERS IN VENICE AREA—Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductor (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
B-10g-I-6	City of Santa Monica, Charnock Well 4. E. of Santa Monica; 1015 feet SW. of Sawtelle Blvd., 140 feet NW. of Westminster Ave., 74 feet SW. of Butler Ave. Use: Municipal. Casing: 18 inches. Perforated 150-350.	2578G	95	*468	(d)	7/17/31				298	65	b144				
B-10h-I-6	City of Santa Monica, Charnock Well 5. E. of Santa Monica; 163 feet SW. of Sawtelle Blvd., 110 feet NW. of Westminster Ave., 113 feet SE. of Corinth Ave. Use: Municipal. Casing: 20 inches. Perforated 170-200; 215-230; 257-300.	2578H	105	*382	(d)	7/17/31				298	43	b86				
B-10i-I-6	City of Santa Monica, Charnock Well 6. E. of Santa Monica; 330 feet SW. of Sawtelle Blvd., 24 feet NW. of Westminster Ave., 24 feet SW. of Corinth Ave. Use: Municipal. Casing: 18 inches. Perforated 178-198; 220-258.	2578I	101	*384	(d)	7/17/31 7/30/31	83.3		23	293 274	53 52	b89 134	4	77	33	46
B-10j-I-6	City of Santa Monica, Charnock Well 7. E. of Santa Monica; 560 feet SW. of Sawtelle Blvd., 24 feet NW. of Westminster Ave., 24 feet SE. of Purdue Ave. Use: Municipal. Casing: 18 inches. Perforated 174-200; 222-240.	2578J	98	*400	(d)	7/17/31				273	59	b118				
B-10k-I-6	City of Santa Monica, Charnock Well 8. E. of Santa Monica; 740 feet SW. of Sawtelle Blvd., 24 feet NW. of Westminster Ave., 132 feet SW. of Purdue Ave. Use: Municipal. Casing: 18 inches. Perforated 110-130; 225-270; 308-312.	2578K	96	*390	(f) (f) (d)	10/7/30 6/8/31 7/7/31				289 293 278	50 43 51	b115				
B-10n-I-6	City of Los Angeles, Berryman Well 1. SW. of Culver City; 100 feet SW. of Berryman Ave., 500 feet SE. of Washington Blvd. Use: Municipal.	2589A	43	x	(f) 1271	4/3/30 8/8/32	94.3	0.08	26	227 324	35 77	131	0	90	38	60
B-10o-I-6	American States Water Service Co. (formerly Peoples Water Co.), Plant 3, Well 6, Culver City; 265 E. of Sepulveda Blvd., 388 feet N. of Washington Blvd. Use: Municipal. Casing: 18 inches. Perforated 164-222.	2589B	53	*402	(f)	10/7/30				281	59					
B-10p-I-6	Guy Beringhelly. Palms; 125 feet W. of Overland Blvd., 190 feet N. of Venice Blvd. Use: Domestic. Casing: 10 inches.	2598	84	x80	1364	9/7/32	53.3	0.16		241	46					
B-13f-I-7	Leo Youngworth. S. of Culver City; 1300 feet E. of Overland Ave., from point 0.33 miles SE. of Jefferson Blvd., 80 feet S. of channel in bottom of small canyon. Use: Irrigation.	2619A	135	---	892	3/25/32	232	0.78	43	445	467	182	0	163	66	237
B-23a-I-5	Venice Consolidated Water Co., Well 10. Venice; 75 feet N. of Venice Blvd., 40 feet W. of Pen Mar Ave. Use: Formerly municipal, dismantled in 1932. Casing: 16 inches. Gravel and sand 7-263. Lab. No. 1263 collected with depth sampler from bottom of well.	1240A	27	*x270	(f) 1263	4/3/30 8/9/32	117	0.08	23	466 287	195 124	209	1	114	50	66
B-23b-I-5	W. M. Humes. Venice; 120 feet SW. of Lincoln Blvd., 150 feet SE. of Coner D Alene. Use: Irrigation. Casing: 12 inches. Perforated from bottom up to top of water.	1240B	24	*210	(f) 415	4/3/30 10/9/31	249	0.14	25	434 351	64 462	325	16	240	97	151
B-23c-I-5	Venice Consolidated Water Co., Well 11. Venice; 75 feet S. of Zanja St., 30 feet W. of Walnut St. Use: Municipal, standby. Casing: 18 inches. Gravel 53-67, 85-97, 127-136, 211-277.	1250	20	*x277	(f)	10/7/30				336	188					
B-23d-I-6	Venice High School, Well 1. Venice; 500 feet S. of Venice Blvd., 600 feet E. of Walgrove St. Use: Domestic and irrigation, standby plant. L. A. D. of W. & P. No. 9-B-16.	1250A	35	200	(e) (e) (e)	5/2/30 6/3/30 3/2/31			24	*286 254 *272	65 60 77	204 218 210		125 117 100	24 26 28	*59 *56 *85
B-23e-I-6	Brentwood Dairy. Venice; 150 feet E. of Del Rey Ave., 200 feet S. of Beach St. Use: Industrial, cooling and washing bottles.	1250B	20	200	(f) (f) (f) 883 (f) (f) 970 1036 1140 1264 1464 1529 1590	4/1/30 6/8/31 10/9/31 3/23/32 4/29/32 5/12/32 6/3/32 7/5/32 8/8/32 10/10/32 11/3/32 12/13/32				458 309 320 320 317 317 314 308 314 311 308 308	131 781 604 770 746 772 763 719 669 596 566 584					



TABLE 7. WELLS AND SURFACE WATERS IN VENICE AREA Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate (HCO <sub>3</sub> )	Chloride (Cl)	Sulfate (SO <sub>4</sub> )	Nitrate (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
B-23f-I-6	Venice High School, Well 2. Venice: 500 feet S. of Venice Blvd., 380 feet E. of Wadsworth St., 20 feet W. of Well 1. Use: Domestic and irrigation. Casing: 6 inches. L. A. D. of W. & P. No. 9-B-17.	1250C	35	250	( <sup>e</sup> ) 11/5/29 ( <sup>f</sup> ) 12/6/29 ( <sup>e</sup> ) 4/2/30 ( <sup>e</sup> ) 9/3/30 ( <sup>e</sup> ) 10/2/30 ( <sup>e</sup> ) 10/7/30 ( <sup>e</sup> ) 11/8/30 ( <sup>e</sup> ) 12/2/30 ( <sup>e</sup> ) 1/5/31 ( <sup>e</sup> ) 1/8/31 ( <sup>e</sup> ) 2/9/31 ( <sup>e</sup> ) 4/1/31 ( <sup>e</sup> ) 6/8/31 ( <sup>e</sup> ) 10/1/31 ( <sup>e</sup> ) 12/8/31 ( <sup>e</sup> ) 4/27/32				40	373 300 318 304 314 316 273 298 298 300 261 331 307 320 312 322	64 64 68 66 63 60 50 43 29 36 82 60 25 312 64	214 207 209 207 206 205 208 211 206 210 212 201 201 64		104 166 166 112 113 57 123 96 112 83 113 99	27 22 21 22 26 29 24 18 27 30 25 45	114 22 36 88 58 119 63 108 74 87 102 65
B-23m-I-6	Frank Coon. Venice: 150 feet E. of Del Rey Ave., 250 feet S. of Beach Ave., 50 feet SE. of B-23e-I-6. Use: Domestic. Casing: 12 inches.	1250D	20	-----	( <sup>f</sup> ) 6/8/31					281	1,058					
B-24a-J-6	Del Rey Land and Water Co., Well 2. E. of Venice: 1,000 feet SE. of intersection of Thatcher Drive and Inglewood line of P. E. Ry. from Venice, 150 feet SW. of P. E. Ry. Use: Irrigation. Casing: 12 inches. L. A. D. of W. & P. No. 9-B-21.	1251A	14	x145	( <sup>e</sup> ) 11/5/29 ( <sup>e</sup> ) 12/6/29 ( <sup>e</sup> ) 5/2/30 ( <sup>e</sup> ) 9/3/30 ( <sup>e</sup> ) 10/2/30 ( <sup>e</sup> ) 11/8/30 ( <sup>e</sup> ) 2/9/31 ( <sup>e</sup> ) 3/2/31 ( <sup>e</sup> ) 4/1/31 ( <sup>e</sup> ) 10/1/31 ( <sup>e</sup> ) 374				33	503 504 429 360 447 460 483 505 497 473	144 156 144 150 148 160 177 234 234 180	518 502 502 555 555 544 365 591 566 408		222 260 131 255 279 266 182 228 257 187	53 79 59 66 77 35 59 76 84 74	173 77 131 85 64 131 165 221 171 131
B-24b-J-6	Del Rey Land and Water Co., Well 1. E. of Venice: 1,000 feet SE. of intersection of Thatcher Drive and Inglewood line of P. E. Ry. from Venice, 200 feet SW. of P. E. Ry. Use: Irrigation. Casing: 14 inches. L. A. D. of W. & P. No. 9-B-20.	1251B	14	176	( <sup>e</sup> ) 1/8/30 ( <sup>e</sup> ) 4/2/30 ( <sup>e</sup> ) 6/3/30 ( <sup>e</sup> ) 12/2/30 ( <sup>e</sup> ) 373				21	488 429 267 472 525	130 128 160 200 192	339 358 581 661 573		235 202 245 264 235	37 50 70 19 91	90 21 89 285 154
B-24c-J-6	Edgeman Farms. E. of Venice: 80 feet SE. of Maxella Ave., 50 feet SW. of Del Rey Ave. Use: Domestic and dairy stock.	1251C	17	185	( <sup>f</sup> ) 4/1/30 ( <sup>f</sup> ) 10/9/31 ( <sup>f</sup> ) 4/29/32			0.17	28	311 518 697	110 266 327	835	39	312	97	209
B-24d-J-6	Mr. Hippert. E. of Venice: 80 feet NW. of Maxella Ave., 200 feet NE. of Del Rey Ave. Use: Irrigation. Perforated 25-45; 63-73.	1251D	19	* 79	( <sup>f</sup> ) 4/1/30 ( <sup>f</sup> ) 4/29/32					966 693	557 291					
B-24j-J-6	Los Angeles County Flood Control District, Test Well 4. SE. of Venice: 500 feet SW. of junction of Jefferson Blvd. and Culver Blvd. W. of P. E. Ry. Use: L. A. C. F. D. test well. Casing: 6 inches. Sampled at 20, 45, 65, 85, 105, and 110 feet depths, respectively.	1253	5	110	( <sup>f</sup> ) 4/20/31 ( <sup>f</sup> ) 4/20/31 ( <sup>f</sup> ) 4/20/31 ( <sup>f</sup> ) 4/20/31 ( <sup>f</sup> ) 4/20/31					3,980 220 160 227 185 973						
B-25-I-6	Washington Park Mutual Water Co. Venice: 100 feet S. of Washington Blvd. and halfway between McConnell and Mildred Sts. Use: Domestic. Casing: 12 inches, in 32-foot pit.	1260	41	x108	( <sup>f</sup> ) 4/3/30 ( <sup>f</sup> ) 10/7/30 ( <sup>f</sup> ) 6/8/31 ( <sup>f</sup> ) 10/9/31 ( <sup>f</sup> ) 4/27/32					554 325 350 284 347	252 50 64 59 64	151	14	93	40	67
B-25a-I-6	Uchida Co. E. of Venice: 100 feet E. of Centinella Ave., 500 feet N. of Washington Blvd. Use: Domestic, nursery stock and vegetables. Casing: 6 inches.	1270	48	(x)	( <sup>f</sup> ) 4/1/30 ( <sup>f</sup> ) 10/7/30 ( <sup>f</sup> ) 6/8/31 ( <sup>f</sup> ) 10/9/31 ( <sup>f</sup> ) 4/27/32					391 280 280 284 293	479 64 71 78 106					
B-25b-I-6	Mrs. Louise Smith. E. of Venice: 140 feet E. of Grandview Ave., 325 feet N. of Washington Blvd. Use: Domestic. Casing: 14 inches. Perforated 90, 100.	1270A	49	x141	( <sup>f</sup> ) 4/10/9/31			0.11		363	87					
B-25c-I-6	Suburban Mutual Water Co. E. of Venice: 250 feet S. of intersection of Washington Blvd. and Centinella Ave. Use: Domestic.	1270B	42	-----	( <sup>f</sup> ) 4/1/30 ( <sup>f</sup> ) 6/13/31 ( <sup>f</sup> ) 10/9/31 ( <sup>f</sup> ) 4/29/32					348 328 339 332	110 57 62 78					
B-25d-I-6	Suburban Mutual Water Co. E. of Venice: 70 feet S. of Short St., 120 ft. W. of Centinella Ave. Use: Domestic.	1270C	31	-----	( <sup>f</sup> ) 6/13/31 ( <sup>f</sup> ) 4/29/32					453 469	142 142					



TABLE 7. WELLS AND SURFACE WATERS IN VENICE AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 at 25°C)	Boron ppm	Percent sodium Na x 100 (Ca + Mg + Na)	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
B 26 J 6	Brentwood Dairy, E. of Venice; 60 feet N. of Maxella Ave., 100 feet E. of Ocean Park Ave. Use: Stock and irrigation. Not used for drinking.	1261	22		( ) 414	4/1/30 10/9/31 4/29/32	359	0.43	35	604 894 1,000	89 337 390	974	133	319	152	347
B 26a J 6	H. Michael, Well 2, E. of Venice; 20 feet S. of Maxella Ave., 30 feet E. of Redwood Drive. Use: Irrigation. Casing: 14 inches. Perforated 120-124; 150-171. L. A. D. of W. & P. No. 9-B-23.	1261A	24	*207	( ) ( ) 413	4/1/30 3/2/31 10/9/31 4/29/32	129	0.19	56	300 335 412 440	67 121 83 135	298		72	38	196
B 26b J 6	N. Nijima, Lessee. E. of Venice; 30 feet S. of Panama St., 150 feet W. of Beethoven St., 550 feet E. of Alla Road. Use: Irrigation.	1271	13	175	( ) ( ) ( )	4/1/30 10/13/30 4/29/32				333 405 537	64 182 213					
B 26c J 6	Mr. Mitani, Lessee. E. of Venice; 1,700 feet NE. of intersection of P. E. Ry. and Culver Blvd. at Alla Station, 100 feet SE. of Culver Blvd., 200 feet SW. of Mozart Ave. Use: Irrigation. L. A. D. of W. & P. No. 9-B-24.	1271A	16		( ) ( ) ( ) 412	4/1/30 10/2/30 10/13/30 6/8/31 10/9/31 4/29/32	292	0.58	37	342 400 465 408 552 463	898 178 178 208 206 162	357	178	190	28	163
B 26d J 6	H. Michael, Well 1, E. of Venice; 540 feet S. of Maxella Ave., 150 feet W. of Michael St., projected southerly. Use: Irrigation. Casing: 14 inches. Perforated from 170 feet up to top of water. L. A. D. of W. & P. No. 9-B-24.	1261B	22	*201	( ) ( ) ( ) ( ) ( ) ( ) 185 377	11/5/29 12/6/29 4/2/30 6/3/30 9/3/30 10/2/30 7/31/31 10/1/31			42 35 29 57 29 67 30 30	124 429 404 130 140 138 138 144 147	263 293 296 273 307 310 352 374		130 121 153 92 175 22 157 159	34 40 50 29 37 57 72 72	154 108 114 211 275 132 136	
B 26f J 6	Del Rey Land and Water Co., E. of Venice; 100 feet N. of P. E. Ry. to Playa Del Rey and 50 feet W. of Y track at Alla Station on P. E. Ry. Use: Irrigation. Casing: 14 inches. Perforated 35-50; 75-90. Water has H <sub>2</sub> S odor.	1271C	10	x150	380	10/1/31	158	0.24	31	518	190	174	0	144	60	126
B 26h J 6	Del Rey Land and Water Co., Well 3, E. of Venice; 150 feet S. of P. E. Ry., 1,000 feet easterly along P. E. Ry. to Venice from intersection with Culver Blvd. Use: Irrigation. Casing: 12 inches. Water has H <sub>2</sub> S odor.	1261C	10	140	375	10/1/31	207	0.28	31	522	163	486	27	193	83	107
B 27a J 6	Henry J. Kidson, E. of Venice; 0.27 miles NE. of Lincoln Blvd. (Roosevelt Highway), 0.22 miles NW. of Jefferson Blvd., 550 feet E. of Bay St., 80 feet S. of S. levee of Ballona Creek. Use: Domestic and irrigation. Casing: 12 inches.	1272A	10	20	419 ( )	10/9/31 4/29/32	265	1.40	53	906 899	373 369	172	1	149	79	356
B 27b J 6	Henry J. Kidson, E. of Venice; 0.36 miles NE. of Lincoln Blvd. (Roosevelt Highway), 0.22 miles NW. of Jefferson Blvd., 550 feet E. of Bay St. on S. levee of Ballona Creek. Use: Irrigation. Casing: 14 inches. L. A. D. of W. & P. No. 9-B-40.	1272B	12	150	( ) ( ) ( ) 420	4/3/30 9/3/30 10/2/30 10/9/31			29 23 36 39	548 634 560 616	96 108 106 106	28 24 11 17		116 107 98 89	36 24 37 46	81 50 103 123
B 27c J 6	Joseph Mesmer, La Ballona Ranch Well 7, Plant 4, SE. of Venice; 0.15 miles SE. of Jefferson Blvd., 0.22 miles SW. of Mozart St. Use: Irrigation. Casing: 16 inches. Perforated 40-58. L. A. D. of W. & P. No. 9-B-41.	1272C	9	*176	( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) 379	10/21/29 12/5/29 1/7/30 4/2/30 5/2/30 6/3/30 9/3/30 10/2/30 3/2/31 4/1/31 6/8/31 10/1/31 4/29/32			40 38 49 30 39 31 37 39 44 44 47	475 432 408 418 405 405 339 355 355 457 469	120 124 108 138 130 132 126 126 124 170 135	90 84 156 160 109 131 117 105 205 165 144		83 84 107 129 85 117 100 91 92 94 87	45 113 50 30 42 36 28 48 156 49 61	119 113 157 157 114 80 98 118 154 129



TABLE 7. WELLS AND SURFACE WATERS IN VENICE AREA - Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium (Ca + Mg + Na)	Constituents (parts per million)					
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)
B-27d-J-6	Joseph Mesmer, La Ballona Ranch Well 9, Plant 7, SE, of Venice, 0.14 miles NE, of Lincoln Blvd. (Roosevelt Highway), 0.45 miles SE, of Jefferson Blvd. Use: Irrigation. Casing: 10 inches. Perforated 55-67.	1273	20	*150	( ) ( ) ( ) 421 897 971 1030 1141 1265 1358 1465 1530 1591	4/ 3/30 10/13/30 6/ 8/31 10/ 9/31 3/30/32 5/12/32 6/ 3/32 7/ 6/32 8/ 8/32 9/ 6/32 11/ 3/32 12/13/32	160 192 175 181 175 172 169 166 170 180	0.22 0.31 0.44 0.29 0.24 0.16 0.26 0.25 0.27 0.33	30 28 29 451 460 31 442 451 479	517 344 409 430 473 451 454 457 442 451 479	263 153 178 172 208 190 185 181 170 172 190	284 284 327 327 318 301	0 0 4 6 6 4	130 173 152 146 139	70 85 82 74 74
B-27e-J-6	Del Rey Land and Water Co., Windmill Well, E. of Venice; 800 feet S. of P. E. Ry. to Venice, 800 feet NW, of Culver Blvd. Use: Hothouse and washing vegetables. Casing: 12 inches.	1202	8	x120	376	10/ 1/31	186	0.30	38	656	213	171	0	143	71
B-27-J-6	Joseph Mesmer, Plant 5, SE, of Venice; 0.08 miles SE, of Jefferson Blvd., 0.25 miles NE, of Lincoln Blvd. (Roosevelt Highway). Use: Irrigation. Water has H <sub>2</sub> S odor.	1272D	8	-----	378	10/ 1/31	220	0.30	40	662	373	112	0	131	90
B-28b-I-6	E. S. Merrill Sanitarium, E. of Venice; 100 feet S. of Culver Blvd., 600 feet E. of Centinella Ave. Use: Domestic. Casing: 12 inches.	1280B	31	x120	( ) 411 890 ( ) 972 1037 1142 1265 1407 1466 1531 1592	6/13/31 10/ 9/31 3/25/32 4/27/32 5/12/32 6/ 3/32 7/ 5/32 8/ 8/32 9/12/32 10/10/32 11/ 3/32 12/13/32	157 171 171 187 172 163 163 157 157 152 152	0.19 0.24 0.26 0.23 0.23 0.22 0.17 0.23 0.25 0.27	36 35 33 33 36 37	382 403 393 405 403 400 396 393 396 393 390	284 202 259 231 304 259 213 201 204 180 187	216 231 215 219 219 209 184	0 4 7 7 4	127 144 154 129 120	56 60 69 57 51
B-30-J-6	Mesmer City Corporation, Ltd., Mesmer City Well 1, E. of Venice; 150 feet E. of Inglewood Blvd., 120 feet S. of Port Road. Use: Municipal. Casing: 16 inches.	1291	20	x402	( ) 182 ( )	6/13/31 7/30/31 4/29/32	92.4	-----	25	314 322	43 43	184	0	88	40
B-31-J-6	Loyola University, SE, of Venice; 70 feet E. of Fordham Road, 0.35 miles N. of 80th St., 0.75 miles N. of Manchester Ave., on University Grounds. Use: Domestic and irrigation. Casing: 18 inches.	1282	136	x400	( ) ( ) 895	10/13/30 6/ 8/31 3/29/32	88.0	0.24	45	362 372	79 87 87	39	1	40	32
B-31a-J-6	Mesmer City Corp., Ltd. (formerly Joseph Mesmer), Mesmer's La Ballona Ranch Well 6, Plant 2, SE, of Venice; 500 feet W. of Centinella Blvd., 200 feet E. of Grosvenor Blvd., 50 feet S. of Gabray St., 0.2 miles S. of Jefferson Blvd. Use: Irrigation. Casing: 16 inches. Perforated 30-75. Water has H <sub>2</sub> S odor.	1292A	13	*200	184	7/31/31	176.2	-----	28	436	141	437	0	153	82
B-31b-J-6	Joseph Mesmer, La Ballona Ranch Well 5, Plant 3, SE, of Venice; 60 feet SE, of Jefferson Blvd., 0.14 miles NE, of Mozart St. Use: Irrigation. Casing: 16 inches. Perforated 23-92; 185-206. Water has H <sub>2</sub> S odor.	1282A	11	*239	381	10/ 1/31	124	0.17	38	497	130	95	0	92	48
S2518-I-7	Ballona Creek, Culver City. Sampled at L. A. C. F. C. D. Staff gage station No. 117, at Duquesne St. crossing. Discharge 3 second feet (estimated). Discharge during summer usually penetrates into creek bottom before reaching tide water.	S2618	55	-----	236	8/19/31	193.5	-----	59	360	350	201	6	89	45

\* Log in files of Division of Water Resources.

x Water levels in files of Division of Water Resources.

a Includes small equivalent quantity of Carbonate (CO<sub>3</sub>).b Sulphate (SO<sub>4</sub>) determined by turbidity method.

c Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.

d Analysis by California State Department of Public Health, Bureau of Sanitary Engineering.

e Analysis by City of Los Angeles, Department of Water and Power Laboratory; Carl Wilson, Director.

f Analysis by Los Angeles County Flood Control District, Los Angeles.



TABLE 8. WELLS IN LOS ANGELES AREA

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
B-61-H-7	City of Beverly Hills, La Cienega Well 1, Beverly Hills; 200 feet S. of Clifton Way, 50 feet W. of La Cienega Blvd. Use: Municipal. Casing: 14 inches. Perforated 156-174; 206-334; 258-271.	2623B	146	*290	(d)	4/20/31				470	200	b27				
B-64-H-6	City of Beverly Hills, Roxbury Park Well 2, Beverly Hills; 200 feet S. of Olympic Blvd., 25 feet W. of Roxbury Drive. Use: Irrigation. Casing: 12 inches. Perforated 318-450.	2504B	225	*450	1618	12/22/32	472	1.21	29	306	1,363	171	0	405	185	341
B-11c-H-7	Beverly Hills Ice & Cold Storage Co., Beverly Hills; 230 feet N. of 34 St., 210 feet W. of Maple Drive. Use: Industrial. Casing: 12 inches. Gravel 162-170; 171-173; 175-180; 448-462; 504-530; 532-562.	2602C	230	*576	386	10/ 2/31	64.8	0.05	34	229	36	95	3	52	27	55
B-11f-H-7	City of Beverly Hills, NE. of Beverly Hills; 65 feet N. of Harratt St., 150 feet W. of Palm Ave. Use: Municipal. Casing: 12 inches. Gravel 172-180.	2611	300	*270	387	10/ 2/31	91.3	1.01	67	333	105	38	6	31	19	148
B-12-H-7	Adair Creamery Co., S. of Beverly Hills; 200 feet W. of La Cienega Blvd., 200 feet S. of 18th St. Use: Not used. Casing: 16 inches. Perforated 194-230. Sampled at 65, 200 and 324-foot depths respectively.	2625	100	*362	( <sup>c</sup> )	3/ 5/32				263	43					
					( <sup>c</sup> )	3/ 5/32				367	43					
					( <sup>c</sup> )	3/ 5/32				469	128					
B-12a-I-7	Pacific Western Oil Co., E. of Culver City; 150 feet W. of Moynier Lane, 80 feet N. of southerly branch of Ballona Creek. Use: Domestic and industrial. Casing: 12 inches. L. A. D. of W. & P. No. 22-C-16.	2626A	82	x720	(b)	3/30/31			32	214	48	50		41	24	43
					( <sup>c</sup> )	3/ 1/32				237	36					
					( <sup>c</sup> )	4/27/32				230	36					
B-124-I-7	Shell Oil Co., E. of Culver City; 25 feet E. of Moynier Lane, 400 feet N. of Serrano crossing of P. E. Ry. In pump station yard of Shell Oil Co. Use: Domestic and industrial. Casing: 14 inches.	2627	95	(x)	(*)	11/12/31				439	256					
					( <sup>c</sup> )	3/ 1/32				453	243					
					( <sup>c</sup> )	4/29/32				434	250					
					1002	5/16/32	142	0.56	60	442	254	2	7	57	37	201
					1039	6/ 4/32	143	0.58	59	445	254	2	4	59	39	203
					1146	7/ 5/32	144	0.58		445	256					
					1272	8/ 8/32	144	0.62	61	448	258	1	2	57	35	205
					1365	9/ 7/32	144	0.50		439	250					
					1470	10/10/32	143	0.63		445	254					
					1535	11/ 7/32	143	0.63	60	442	248	5	2	59	34	196
					1593	12/13/32	143	0.64		448	248					
B-12c-I-7	American States Water Service Co., E. of Culver City; 30 feet E. of Serrano Ave., 300 feet S. of Jacob St. Timber-covered pit. Use: Not used. Casing: 12 inches. Sampled at 85-foot depth.	2627A	85		( <sup>c</sup> )	3/ 1/32				352	106					
B-12f-I-7	City of Beverly Hills, Castle Tract Well 2, E. of Culver City; 1,000 feet S. of Adams Blvd., 150 feet E. of Spaulding St., 500 feet E. of Moynier Lane at end of Jefferson and Adams Bvds. storm drains. Use: Municipal. Casing: 26 inches. Perforated 290-294.	2636	82	*317	( <sup>c</sup> )	3/ 1/32				295	96					
					( <sup>c</sup> )	4/29/32				332	78					
B-12a-I-7	American States Water Service Co., Plant 5, NE. of Culver City; 290 feet S. of Washington Blvd., 60 feet E. of Serrano Ave. Use: Municipal. Casing: 30 inches. Perforated 152-160; 174-199; 214-206.	2626D	88	*266	(d)	4/20/31				340	103	b20				
					384	10/ 2/31	102	0.31	52	421	119	24	0	54	32	132
					( <sup>c</sup> )	1/30/32				429	114					
B-12c-H-7	City of Beverly Hills, La Cienega Well 2, S. of Beverly Hills; 500 feet N. of Venice Blvd., 50 feet W. of La Cienega Blvd. Use: Municipal. Casing: 26 inches. Perforated 120-150; 193-260; 278-300.	2626E	94	*340	(d)	4/20/31				354	86	b45				
B-12a-I-7	City of Beverly Hills, Castle Tract Well 1, S. of Beverly Hills; 1,000 feet S. of Adams Blvd., 25 feet E. of Genesee Ave. Use: Municipal. Casing: 26 inches. Perforated 201-320.	2626F	82	*333	(d)	4/20/31				354	160	b100				
B-13c-I-7	M. Moynier Well 1, E. of Culver City; 1,200 feet S. of Figueroa St., 200 feet W. of Moynier Lane. Use: Irrigation. Casing: 12 inches. Perforated 59-80.	2628	119	*120	385	10/ 2/31	469	0.64	35	448	1,243	290	0	352	168	385
					( <sup>c</sup> )	11/12/31				449	1,321					
					( <sup>c</sup> )	3/ 1/32				449	1,292					
					( <sup>c</sup> )	4/29/32				410	1,363					
B-13a-I-7	M. Moynier Well 2, E. of Culver City; 650 feet S. of Figueroa St., 200 feet W. of Moynier Lane. Use: Domestic. Casing: 14 inches. Perforated 20-38. Sample for D. W. R. Lab. No. 484 was dipped from open casing.	2628A	105	*237	484	10/22/31	539	0.53	58	294	1,677	30	0	297	144	606
					( <sup>c</sup> )	11/12/31				342	2,024					
					( <sup>c</sup> )	3/ 1/32				390	2,272					
					( <sup>c</sup> )	4/29/32				390	2,095					



TABLE 8. WELLS IN LOS ANGELES AREA Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>6</sup> at 25°C)	Boron ppm	Percent sodium (Na x 10) Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
B-13g-I-7	Mr. Collins. E. of Culver City; 250 feet S. of Higuera St., 80 feet W. of Lenawee Ave. Use: Irrigation. Three-foot dug well.	627G	97	26	(e) 884 (e)	3/ 1/32 3/23/32 4/29/32	1.477	0.45	20	425 448 434	5.183 5.414 5.392	52	0	1,390	724	744
B-13h-I-7	Mr. Collins. SE. of Culver City; 1,300 feet S. of Higuera St., 150 feet W. of Lenawee St. In pump house in back of large white stucco residence. Use: Domestic. Three-foot dug well.	2628B	127	25	(e) (e)	3/ 1/32 4/29/32				352 366	728 650					
B 14-G-8	Home Ice & Cold Storage Co. Hollywood; 80 feet E. of La Brea Ave., 175 feet N. of Santa Monica Blvd. Use: Industrial. Casing: 12 inches, in 20-foot concrete pit. Perforated 100-110.	2650	289	x110	388	10/ 2/31	87.8	0.29	60	238	130	55	6	34	23	126
B 15a-I-8	Blue Bird Laundry. Los Angeles; 400 feet E. of Crenshaw Blvd., 150 feet N. of Exposition Blvd. Use: Laundry supply.	2667B	110	-----	1,273	8/ 8/32	51.0	0.84	50	204	36	42	2	35	12	62
B-16 I 8	Los Angeles Investment Co., E. Irrigation Well. Los Angeles; 100 feet N. of 48th St., 90 feet W. of 4th Ave. Use: Formerly irrigation, not used for domestic or municipal purposes. Casing: 12 inches. Perforated 30-48; 66-75. First operation of three wells after two years' idleness. Test run to develop present character of water. Sample is composite of three wells, B-16-I-8, B-16a-I-8, and B-16b-I-8, which are inter-connected but can be operated separately by use of valves installed.	2679	128	x300	382	10/ 2/31	190	0.14	18	375	355	141	6	227	63	82
B-16c-I-8	Los Angeles Investment Co. Los Angeles; 175 feet N. of 48th St., 90 feet W. of 4th Ave. Use: Municipal. Casing: 16 inches. Perforated 311-331; 334-347; 362-374; 417-441.	2679C	128	*x608	(f) 383	5/10/28 10/ 2/31	----- 64.4	0.09	26 27	272 241	131 30	140 87	4	116 70	29 21	*68 44
B-16d I-8	Los Angeles Investment Co. Los Angeles; 40 feet N. of 48th St., 125 feet W. of 4th Ave. Use: Municipal. Casing: 16 inches. Perforated 410-437; 622-632; 656-658; 666-688; 843-864; 969-973. D. W. R. Lab. No. 431 is a sample from driller's bucket of water from stratum at 622 to 632 feet. L. A. D. of W. & P. No. 22-D-15.	2679D	127	*1015	451 (b) (b) (b) (b) (b)	10/16/31 10/16/31 11/ 9/31 11/12/31 11/13/31 11/20/31	73.3 ----- ----- ----- ----- -----	0.30	33 7 19 14 12 5	183 *230 *47 189 *236 130	83 80 111 129 35 30 34	108 116 129 82 82 83	0	66 110 98 79 96 77	23 29 5 12 12 9	58 13 20 10 18 5
B-19f-I-9	California Consumers Co., Well 3. Los Angeles; 180 feet NW. of Hill St., 525 feet SW. of Jefferson Blvd. Use: Industrial (treated before use). Casing: 14 inches. Perforated 360-380.	2728C	195	*408	389	10/ 2/31	73.8	0.11	27	281	44	92	6	81	24	52
B 21b-H-10	California Consumers Co. Los Angeles; 200 feet S. of 5th St., 515 feet E. of Alameda St. Use: Industrial (treated for ice-making). Casing: 18 inches. Gravel 95-98; 109-114; 119-132.	2765B	258	*266	390	10/ 2/31	119	0.24	32	308	147	162	0	113	35	42
B-38-J-8	City of Inglewood, Well 7. Inglewood; 1,000 feet N. of Redondo Road, 600 feet E. of Prairie Ave. In City Park. Use: Municipal. Casing: 18 inches. Perforated 100-115; 135-139; 177-191; 245-265.	1352	141	*x300	(d)	7/16/31				239	36	b60				
B 38a J-8	City of Inglewood, Well 8. Inglewood; 1,250 feet N. of Redondo Blvd., 550 feet E. of Prairie Ave. In City Park. Use: Municipal. Casing: 18 inches. Perforated 104-122; 184-187; 246-275.	1352A	141	*297	(d)	7/16/31				258	34	445				
B-38b-J-8	City of Inglewood, Well 9. Inglewood; 1,100 feet N. of Redondo Blvd., 440 feet E. of Prairie Ave. In City Park. Use: Municipal. Casing: 18 inches. Perforated 86-110; 113-149; 182-190; 242-265.	1352B	142	*290	(d)	7/16/31				234	21	b50				
B 38d J 8	City of Inglewood, Well 11. Inglewood; 1,450 feet N. of Redondo Blvd., 750 feet E. of Prairie Ave. In City Park. Use: Municipal. Casing: 18 inches. Perforated 104-117; 176-196; 246-269.	1352D	147	*1025	(d)	7/16/31				234	29	b60				
B-38e-J-8	City of Inglewood, Well 12. Inglewood; 1,350 feet N. of Redondo Blvd., 700 feet E. of Prairie Ave. In City Park. Use: Municipal. Casing: 18 inches. Perforated 101-115; 122-130; 175-195; 239-260.	1352E	141	*282	(d)	7/16/31				234	30	b60				
B-38f-J-8	City of Inglewood, Well 13. Inglewood; 1,350 feet N. of Redondo Blvd., 950 feet E. of Prairie Ave. In City Park. Use: Municipal. Casing: 18 inches. Perforated 184-207; 246-254.	1352F	152	*300	(d)	7/16/31				234	33	b54				



TABLE 8. WELLS IN LOS ANGELES AREA—Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						Sodium (Na)
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	
B-42B J 8	City of Inglewood. Inglewood; 60 feet N. of 80th St., 155 feet W. of 10th Ave. Use: Municipal. Casing: 18 inches. Perforated 244-285. Well first perforated at 1,047-1,087 feet (total depth 1,097 feet). D. W. R. Lab. No. 207 and Los Angeles Testing Lab. on 7/31/31 are analyses of water (dark amber in color) from this stratum, sampled during test run. Well was later sealed up to 321 feet and perforated at 244-285 feet. Later analyses are from the upper stratum. L. A. D. of W. & P. No. 10 B-18.	1373A	233	*321	(1) 207 (b) (1)	7/31/31 8/3/31 4/11/32 4/12/32	201.2 201.2 201.2 201.2	— — — —	94 93 51 36	1,254 1,266 1,178 1,225	144 66 42 2	17 18 48 35	0 0 — —	16 19 38 40	8 8 7 11	541 479 460 538
B 47J-K 8	Los Angeles County, Well 1. SE. of Inglewood; 100 feet S. of 106th St., 0.15 miles W. of Normandie Ave. Use: Domestic.	1395A	223	—	861	3/28/32	48.8	0.14	37	201	23	58	0	48	12	47
B 50 I 9	City of Los Angeles, Figueroa and Slauson Pumping Plant 1. W. of Vernon; 75 feet N. of Slauson Ave., 100 feet W. of Figueroa St. Use: Municipal. Casing: 12 inches. Perforated 96-126; 400-434; 456-496.	1411	154	*x610	196	8/6/31	102.2	—	18	308	75	163	13	117	32	43
B-55B-J-9	Goodyear Tire & Rubber Co., Well 3. Los Angeles; 1250 feet W. of Central Ave. between car tracks on Gage Ave. at McKinley Ave. Brick pump house opposite Goodyear Tire & Rubber Co. garage. Use: Industrial. Casing: 18 inches. Perforated 93-125; 133-145; 156-170.	1431	162	*x260	198	8/6/31	111.8	—	26	354	73	165	35	124	35	74
B-58A K-9	American States Water Service Co., Delmar Plant (formerly Los Angeles Water Service Co., Well 4). NE. of Athens; 115 feet S. of 116th Place; 700 feet E. of San Pedro St. Use: Municipal. Perforated 165-175; 301-319; 390-425.	1437B	120	*x549	197	8/6/31	55.6	—	30	220	23	72	0	57	15	40
B-59K L 9	H. Hellmers. W. of Compton; 180 feet N. of Rosecrans Blvd., 250 feet E. of Avalon Blvd. Use: Irrigation. Casing: 14 inches. Gravel 136-140; 173-178; 279-300; 312-338; 348-356.	1439E	118	*362	200	8/6/31	47.0	—	37	217	20	38	0	41	13	44
B-62c J 9	City of Los Angeles, Green Meadows Well 1. W. of Watts; 55 feet E. of Wadsworth Ave., 75 feet N. of 99th St. Use: Municipal. Casing: 16 inches. Perforated 305-343; 537-552.	1445B	118	*x620	201	8/6/31	60.2	—	27	235	27	81	2	65	18	41
B 63B-I-10	Pioneer Paper Co., Vernon; 15 feet S. of 55th St., 950 feet E. of Alameda Ave. Use: Industrial. Casing: 16 inches. Perforated 77-96; 284-305; 315-323; 426-432; 495-510.	1460B	183	*531	199	8/6/31	61.8	—	28	235	27	90	2	65	18	43
B 69A J-10	American States Water Service Co., Well N1. SW. of Huntington Park; 90 feet N. of Nadeau St., 70 feet E. of Walnut Drive. Use: Municipal. Casing: 14 inches.	1463	142	x195	205	8/6/31	102.2	—	25	305	66	156	21	114	32	63
B 60c J 10	Walnut Park Mutual Water Co., Well 4. S. of Huntington Park; 40 feet S. of Florence Ave., 245 feet E. of Santa Fe Ave. Use: Municipal. Casing: 20 inches. Perforated 928-1,600.	1472A	157	*x1600	204	8/6/31	56.7	—	29	226	23	80	0	60	17	40
B 66f J-10	Walnut Park Mutual Water Co., Well 2. S. of Huntington Park; 145 feet S. of Florence Ave., 500 feet E. of Santa Fe Ave. Use: Municipal. Casing: 12 inches.	1472D	157	666	203	8/6/31	69.6	—	27	250	34	96	21	75	21	46
B-69c-K-10	City of Compton, Well 3. Compton; 30 feet N. of Hatchway Ave., 700 feet W. of Avamie St. Use: Municipal. Casing: 12 inches.	1469A	77	x350	152 (d)	7/22/31 7/14/32	57.2	—	32	220 232	23 27	81 150	1	60	16	45
B-69H-L-10	City of Compton, Well 2. Compton; 60 feet W. of Tamarind St., 100 feet S. of Orange St. Use: Municipal. Casing: 12 inches.	1479	71	350	(e)	7/14/31	—	—	—	232	25	150	—	—	—	—
B 70 I 10	Mr. Winger, Vernon; 350 feet W. of Boyle Ave. (State St.), 275 feet S. of Fruitland Ave. Use: Domestic. Casing: 8 inches.	1480	185	x180	848	3/23/32	125	0.24	24	278	69	184	133	141	38	73
B 70c-J-10	City of Huntington Park, Well 4. Huntington Park; 340 feet S. of Slauson Ave., 75 feet E. of Miles Ave. (Soto St.). Use: Municipal. Casing: 18 inches.	1481	176	x900	(e)	7/21/31	—	—	—	273	49	170	—	—	—	—
B-71 J-10	City of Huntington Park, Well 5. Huntington Park; 25 feet E. of Miles Ave., 55 feet N. of Zoe Ave. Use: Municipal. Casing: 18 inches.	1482	163	x1246	(1)	7/21/32	—	—	—	229	29	145	—	—	—	—
-71a J 10	Bell Water Co., Plant 1, Well 1. W. of Bell; 30 feet E. of U. P. R.R., 25 feet S. of Gage Ave. Use: Domestic. Casing: 12 inches. Perforated 112-130; 250-290.	1492	156	*x636	206	8/6/31	57.8	—	29	229	25	76	2	59	19	43



TABLE 8. WELLS IN LOS ANGELES AREA Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
B-71c-J-10	City of Huntington Park, Well 6. SE. of Huntington Park; 30 feet S. of Florence Ave., 30 feet E. of Salt Lake Ave. Use: Municipal. Casing: 18 inches.	1492B	142	x600	(d)	7/21/32	---	---	---	239	32	b50	---	---	---	---
B-72c-J-10	City of Southgate, Well 2. Southgate; 35 feet S. of Ardmore Ave., 80 feet E. of Elizabeth St. Use: Municipal. Casing: 12 inches.	1494	122	x690	(d)	7/21/31	---	---	---	210	28	b45	---	---	---	---
B-72g-K-10	Home Gardens Water Co. (Sidney Smith, owner). Southgate; 20 feet N. of Michigan Ave., 80 feet W. of Elizabeth Ave. Use: Municipal. Casing: 12 inches.	1495B	100	x732	202	8/ 6/31	72.6	---	28	271	39	102	0	79	21	50
B-73c-K-10	City of Lynwood, Well 2. Lynwood; 80 feet S. of Lynwood Road, 0.14 miles W. of Long Beach Blvd. Use: Municipal. Casing: 16 inches. Perforated 93-135; 314-338	1487	85	*352	(d)	7/14/31	---	---	---	280	45	b88	---	---	---	---
B-73c-K-10	Test hole. Lynwood; 5 feet W. of California Ave., 25 feet S. of Century Blvd.	1496	95	12	768	3/ 4/32	336	0.83	61	784	417	672	2	139	100	535
B-75-I-10	Maywood Mutual Water Co., Well 1 of 2. Maywood; 115 feet N. of 56th St., 30 feet W. of Loma Vista Ave. Use: Municipal. Casing: 16 inches. Perforated 362-371; 529-536; 548-557; 808-816; 852-870.	1500	168	*x1333	(d)	7/14/31	---	---	---	246	34	b28	---	---	---	---
B-75a-J-10	Maywood Mutual Water Co., Well 2 of 2. Maywood; 175 feet E. of Everett St., 100 feet N. of 60th St. Use: Municipal. Casing: 16 inches. Perforated 210-227; 458-503; 552-504; 839-846; 917-975.	1501	160	*x1016	(d)	7/14/31	---	---	---	234	29	b57	---	---	---	---
B-75b-J-10	Maywood Mutual Water Co., Well 1 of 1. Maywood; 290 feet S. of Slauson Ave., 250 feet W. of Gifford St. Use: Municipal. Casing: 12 inches. Perforated 844-889.	1501A	158	*x985	(d)	7/14/31	---	---	---	242	28	b37	---	---	---	---
B-75f-I-11	Maywood Mutual Water Co., Well 2 of 3. Maywood; 237 feet E. of Heliotrope St., 30 feet SE. of Riverside Drive. Use: Municipal.	1520A	148	x	(d)	7/14/31	---	---	---	242	45	b35	---	---	---	---
B-75b-J-11	Maywood Mutual Water Co., Well 3. Maywood; 150 feet E. of Heliotrope St., 140 feet N. of 57th St. Use: Municipal. Casing: 16 inches.	1521	145	x1298	(d)	7/14/31	---	---	---	244	33	b50	---	---	---	---
B-76f-J-11	Maywood Mutual Water Co., Well 1 of 3. Maywood; 130 feet W. of Prospect St. between Gage Ave. and Randolph St. at head of Filmore St. Use: Municipal. Casing: 12 inches. Perforated 130-134; 150-170; 270-280; 284-285	1512	142	*x301	(d)	7/14/31	---	---	---	236	29	b32	---	---	---	---
B-77a-J-10	City of Southgate, Well 3. Southgate; 35 feet S. of Ardmore Ave., 55 feet W. of Otis St. Use: Municipal. Casing: 12 inches.	1504	121	850	(d)	7/21/31	---	---	---	234	30	b45	---	---	---	---
B-77b-J-11	City of Southgate (formerly Guy Neville), Well 7. NE. of Southgate; 60 feet SW. of U. P. R. R., halfway between Atlantic Blvd. and Firestone Blvd. at head of Neville St. Use: Municipal. Casing: 12 inches.	1514	111	650	(d)	7/21/31	---	---	---	224	29	b45	---	---	---	---
B-78-K-10	City of Southgate, Well 8. Southgate; 165 feet N. of Michigan Ave., 30 feet W. of Kaufman Ave. Use: Municipal. Casing: 12 inches.	1505A	105	x764	(d)	7/21/31	---	---	---	249	27	b23	---	---	---	---
B-78c-J-10	City of Southgate, Well 5. Southgate; 20 feet W. of Kaufman Ave., 75 feet S. of Southern Ave. Use: Municipal. Casing: 12 inches. Perforated 318-330; 350-362; 614-680; 732-750; 892-904.	1515A	114	*x1,000	(d)	7/21/31	---	---	---	230	52	b45	---	---	---	---
B-78d-K-11	City of Southgate, Well 9. Southgate; 60 feet E. of Washington Ave., 150 feet S. of Tweedy Blvd. Use: Municipal. Casing: 12 inches.	1515B	105	813	(d)	7/21/31	---	---	---	239	21	b20	---	---	---	---
B-111d-L-9	J. P. Miller Realty Co. W. of Compton; 2,000 feet W. of Central Ave., 500 feet N. of Riverside-Redondo Blvd. Use: Irrigation. Casing: 12 inches. Perforated 178-195.	840A	105	*250	162	7/23/31	59.1	---	30	229	27	84	Tr.	71	16	47
B-116c-L-10	City of Compton, Magnolia Plant 4. Compton; 75 feet N. of Magnolia St., 500 feet E. of P. E. Ry., 100 feet W. of Tamarind St. Use: Domestic. Casing: 16 inches. Perforated 669-688.	870	68	*x714	150	7/22/31	50.5	---	34	220	20	56	Tr.	52	13	44
B-116d-L-10	City of Compton, Magnolia Plant 1. Compton; 50 feet N. of Magnolia St., 110 feet W. of Tamarind St. Use: Municipal. Casing: 12 inches.	870A	68	x360	151	7/22/31	50.6	---	34	217	20	50	0	52	13	44



TABLE 8. WELLS IN LOS ANGELES AREA—Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>-3</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
B-116m L-10	Test hole, W. of Compton; on S. line of Olive (Center St.), 50 feet E. of drain, 300 feet W. of Oleander St.	871A	66	8	741	2/15/32	157	0.38	42	479	181	185	6	120	52	108
B-117-L-10	I. W. Hellman Ranch, SW. of Compton; 100 feet E. of Wilmington Ave., 0.6 miles N. of Victoria St. Use: Domestic. Casing: 7 inches.	862	97	x	1838	2/8/33	33.9	0.06	53	92	53	0	0	25	5	40
B-117a L-10	G. D. Hufford, Well 2, SW. of Compton; 0.25 miles N. of Victoria St., 300 feet E. of Compton Ave. (Wilmington Ave.). Use: Irrigation. Casing: 16 inches. Perforated 335-369.	862A	125	374	240	8/19/31	50.5	-----	39	204	23	65	0	50	11	49
B-121f L-10	Southern California Mausoleum Co., Compton; 100 feet N. of Main St., 25 feet E. of Temple St. Use: Irrigation and domestic. Casing: 12 inches. Perforated 100-136.	890B	70	*142	149	7/22/31	76.7	-----	28	268	46	127	Tr.	86	23	54
B-121j L-10	City of Compton, Shinner Tract Well 5, SE. of Compton; 100 feet N. of Shinner St., 100 feet W. of Long Beach Blvd. Use: Municipal. Casing: 18 inches. Perforated 92-132.	891	62	*199	153	7/22/31	67.5	-----	29	250	34	106	0	76	18	50
B-122a L-10	City of Long Beach, N. Long Beach Well 2, SE. of Compton; 200 feet E. of Long Beach Blvd., 800 feet S. of Artesia St. Use: Municipal. Casing: 10 inches.	892C	57	200	84	6/19/31 7/5/32 8/3/32	54.8	-----	33 33 34	244 241 245	23 25 34	56 53 26	Tr. ----- -----	60 61 62	15 10 10	48 43 47
B-123a M-10	George Mindrup, S. of Compton; 1,400 feet N. of Delano St., 1,100 feet E. of Alameda St., 1,100 feet W. of P. E. Ry. On W. bank of Compton Creek. Use: Irrigation and domestic. Casing: 12 inches.	884	40	161	154	7/22/31	56.9	-----	36	223	27	72	0	65	9	52
C-808r I-12	Montebello Land and Water Co., Well 7, Montebello; 50 feet W. from edge of bluff of Rio Hondo, 30 feet S. of Washington Ave., extended, 650 feet E. of Poplar St. Use: Irrigation and domestic. Casing: 20 inches. Perforated 72-110. Well originally 900 feet deep and sealed up to 126 foot depth.	2908	211	*x126	1028	6/1/32	50.0	0.16	45	204	39	23	6	39	12	54
C-808u I-12	La Merced Heights Land and Water Co., Well 2, Montebello; 700 feet E. of Lincoln Ave. on a line with La Merced Ave., projected, 150 feet N. of C-803v-I-12. Use: Not used. Casing: 12 inches. U. S. D. A. analysis on 3/26/32 is duplicate of D. W. R. Lab. No. 868.	2917A	186	x125	868	3/26/32 3/26/32	189 194	0.76	45 45	274 286	481 467	35 29	0 1	149 150	37 32	200 192
C-803v-I-12	La Merced Land and Water Co., Old Well 1, Montebello; 700 feet E. of Lincoln Ave. on a line with La Merced Ave., projected, 150 feet S. of C-803u-I-12. Use: Municipal. Casing: 16 inches.	2917B	186	x460	979	5/13/32 6/1/32 7/5/32 8/9/32 9/9/32 10/5/32 11/2/32 12/6/32 1/4/33	220 218 215 209 203 214 196 177 146	0.95 0.91 0.87 0.89 0.91 0.93 0.85 0.87 0.72	48	281 284 284 287 281 274 271 268	564 559 532 520 493 425 467 423 346	35 ----- ----- 33 ----- ----- 21 29	0 ----- ----- 0 ----- 0 0 0	159 ----- ----- 157 ----- 148 98	36 ----- ----- 41 ----- 34 23	233 ----- ----- 221 ----- 201 167
C-806d-I-12	John J. Germaine, Montebello; 800 feet W. of Lincoln Ave., 200 feet S. of La Merced Ave., extended. Use: Domestic, public supply. Perforated at about 65 foot depth. Well drilled for oil and converted to water well.	2917D	185	1,300	(*) 1018	3/30/32 6/1/32	77.9	0.41	81	242 281	98 106	34 -----	0 -----	22 -----	5 -----	144 -----
C-806h I-12	John J. Germaine, E. of Montebello; 0.2 miles E. of turn in Lincoln Ave., 800 feet S. of La Merced Ave., extended. Use: Domestic. Casing: 8 inches.	2917F	185	50	1029	6/1/32	71.9	0.29	61	241	67	58	6	41	10	104
C-807h-I-12	South Montebello Irrigation District, Well 1, Montebello; 0.13 miles S. of Roosevelt Ave., 150 feet E. of First St. (Bluff Ave.), 450 feet N. of Mines Ave. In S. end of pump house in Rio Hondo River bottom. Use: Domestic and irrigation. Casing: 16 inches. Perforated 30-70; 95-103; 112-129; 140-150; 153-157.	2899A	170	*200	(*)	4/1/32	-----	-----	-----	193	32	-----	-----	-----	-----	-----
C-808b I-12	Mr. Burkhardt, Montebello; 120 feet E. of Greenwood Ave., 80 feet S. of Beach St. Use: Domestic. Casing: 5 inches.	1580D	195	x172	(*) 1661	4/21/32 12/27/32	75.4	0.13	16	205 201	89 124	16 -----	1 -----	93	19	28
C-809c I-12	California Water Service Co., Belvedere Well 19, Montebello; 55 feet W. of Vail Ave., 50 feet N. of Ferguson Drive. Use: Domestic and irrigation. Casing: 12 inches.	2879B	191	x	(*)	7/13/31	-----	-----	-----	236	33	121	-----	-----	-----	-----



TABLE 8. WELLS IN LOS ANGELES AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 at 25 C)	Boron ppm	Percent sodium (Ca + Mg + Na)	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulphate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C 834f J 11	George Peterson, SE. of Bell; 0.14 miles N. of Clara St. (Hunt's Crossing Road), 210 feet W. of Perry Road. Use: Irrigation. Casing: 12 inches. Perforated 211-233; 357-381.	1543H	121	*402	141	7/15/31	47.6	-----	30	250	18	18	4	55	13	38
C-834m-J-11	Tweed-Beck, SE. of Bell; 600 feet N. of Hunt's Crossing Road (Clara St.), 800 feet E. of Los Angeles River. Use: Domestic. Casing: 8 inches. Perforated 207-221.	1533D	120	*229	142	7/15/31	224.9	-----	27	290	341	515	2	237	78	154
C-866d-J-11	Rio Grande Oil Co., Well 1, SE. of Bell; 175 feet S. of S. P. R., 450 feet E. of E. bank of Los Angeles River, 1,800 feet W. of Harper St. (Perry Road). Use: Industrial and domestic. Casing: 12 inches. Perforated 482-499.	1534A	109	*575	132	7/15/31	48.3	-----	37	229	25	30	7	48	12	45
C-902a-I-11	California Water Service Co., Belvedere Well 8, Unit 9, W. of Montebello; 60 feet W. of Brannick Ave., 40 feet S. of Anaheim-Telegraph Road, 100 feet N. of Mines Ave. (9th St.). Use: Municipal. Casing: 12 inches. Perforated 163-178; 190-247.	2828A	191	*x250	(4) 391	7/13/31 10/3/31	67.6	0.07	29	185 223	77 57	447 57	14	64	23	46
C 964a-I 11	Goodrich Tire and Rubber Co., Well 1, W. of Montebello; 500 feet S. of 9th St., 700 feet W. of Gerhard Ave., S. of reservoir and power plant. Use: Industrial. Casing: 16 inches. Gravel 253-266, 272-279; 406-490; 648-657; 708-750. Casing sealed back to 368 foot depth.	2858B	165	*788	393	10/3/31	40.9	0.07	41	192	23	29	4	33	12	42
C 1310-I-10	West Coast Kalsamine Co., N. of Vernon; 350 feet N. of 26th St., 2,000 feet W. of Downey Road. Use: Industrial. Casing: 12 inches. Perforated 148-155; 178-179; 218-233; 269-277; 301-305; 321-332; 336-352.	2788A	201	*401	392	10/3/31	89.4	0.16	25	250	59	128	13	96	29	24

\* Log in files of Division of Water Resources.

x Water levels in files of Division of Water Resources.

a Includes small equivalent quantity of Carbonate (CO<sub>3</sub>).b Sulphate (SO<sub>4</sub>) determined by turbidity method.

c Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.

d Analysis by California State Department of Public Health, Bureau of Sanitary Engineering.

e Analysis by Los Angeles County Flood Control District, Los Angeles.

f Analysis by Los Angeles Testing Laboratory, Los Angeles.

g Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.

h Analysis by City of Los Angeles, Department of Water and Power Laboratory; Carl Wilson, Director.

i Analysis by City of Long Beach Engineering Laboratory.



TABLE 9. SURFACE WATERS IN LOS ANGELES AREA

Number	Location and description	Location Number	Elevation of ground	Discharge in second foot	Laboratory number	Date	Time of day	Specific electrical conductance (K x 10 <sup>3</sup> at 25° C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
											Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
S871-L-10	Compton Creek, W. of Compton. Sampled at S. side of Olive St., 300 feet W. of Oleander St.	S871	65		742	2/15/32		27.9	0.06		98	23					
S883-L-10	Compton Creek pond. S. of Compton. Sampled at bridge across pond, 600 feet E. of Alameda St. at Dominguez junction. Pond is filled with water the year around.	S883	46		159	7/22/31		174.6		52	162	344	222	Tr.	96	41	200
S883A-L-10	Compton Creek, S. of Compton. Sampled at Alameda St. crossing. Discharge from L. A. C. F. C. D.	S883A	50	40	(c)	1/25/33	3.30 p.m.				50	21	28	Tr.	22	0	
S895-M-10	Los Angeles River, SE. of Compton. Sampled at Del Amo St. crossing. Discharge from L. A. C. F. C. D.	S895	40	150	(c)	1/25/33	3.00 p.m.				177	64	153	0	67	3	
S911-L-10	Los Angeles River, E. of Compton. Sampled at Atlantic Blvd. (Olive St.) crossing. Discharge estimated by L. A. C. F. C. D. at time of sampling.	S911	56	0.3	874	4/11/32		102	0.42	49	432	105	127	0	75	22	124
S1524-J-11	Los Angeles River, E. of Southgate. Sampled at Compton-Labonera Road crossing W. of Rio Grande Blvd. refinery. U. S. D. A. analysis duplicate of D. W. R. Lab. No. 862.	S1524	105		862 (c)	3/24/32 3/24/32		54.3 55.4	0.19	56 53	214 223	41 43	44 42	1 2	34 35	11 12	76 171
S1525-K-11	Los Angeles River, W. of Downey. Sampled at L. A. C. F. C. D. gaging station 34 at Stewart and Gray Road crossing. Discharge from L. A. C. F. C. D.	S1525	95	1.4 2,000 150 1,100	869 (c) (c) (c) (c)	4/11/32 1/19/33 1/24/33 1/29/33	10.00 a.m. 5.45 p.m. 7.30 p.m.	69.8	0.65	60	183 78 166 61	6 18 57 11	163 48 163 33	0 Tr. 2 Tr.	36 31 51 24	13 2 2 1	98
S1535-K-11	Rio Hondo, W. of Downey. Sampled at L. A. C. F. C. D. gaging station 45 at Stewart and Gray Road crossing. Discharge from L. A. C. F. C. D.	S1535	95	400 600	(c) (c)	1/19/33 1/29/33	10.20 a.m. 8.05 p.m.				55 56	14 14	11 13	0 Tr.	15 17	1 1	
S2627-I-7	Mr. Casserini spring, E. of Culver City. On W. bank of Ballona Creek, 700 feet NE. of Figueroa St. Use: Irrigation.	S2627	50		894	3/25/32		1403	4.94	52	778	4,083	1,840	0	754	515	1,982
S2771-G-10	Los Angeles River, NE. of Los Angeles. Sampled at L. A. C. F. C. D. gaging station 57 at Dayton Ave. bridge. Discharge from L. A. C. F. C. D.	S2771	300	700 4,000 400	(c) (c) (c)	1/16/33 1/19/33 1/29/33	7.45 p.m. 5.45 p.m. 6.05 p.m.				68 56 78	14 83 12	4 33 74	0 Tr. Tr.	32 34 36	0 1 1	
S2771A-G-10	Arroyo Seco, NE. of Los Angeles. Sampled at L. A. C. F. C. D. gaging station 58 at Avenue 26. Stream joins Los Angeles River 1,800 feet below station. Discharge from L. A. C. F. C. D.	S2771A	310	200 70	(c) (c)	1/19/33 1/29/33	5.10 p.m. 6.30 p.m.				39 54	11 11	18 31	0 Tr.	19 20	0 0	
S2774-H-10	Los Angeles River. Los Angeles. Sampled under Aliso St. bridge.	S2774	250		1708	1/20/33		51.9	0.13	28	131	34	96	7	57	15	37
S2777-I-10	Los Angeles River. Los Angeles. Sampled at S. side of 9th St. bridge.	S2777	210		(c)	12/17/32				54	324	226	247		99	35	1,207

<sup>a</sup> Includes small equivalent of Carbonate (CO<sub>3</sub>).<sup>b</sup> Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.<sup>c</sup> Analysis by Los Angeles County Health Department Laboratory and obtained from Los Angeles County Flood Control District.<sup>d</sup> Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.<sup>e</sup> Analysis by City of Long Beach, Engineering Laboratory.



TABLE 10. SURFACE WATERS IN LOS ANGELES COUNTY AREA

Number	Location and description	Location number	Elevation of ground	Discharge in second feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
S1835 K-17	Rodeo Canyon Creek, NE. of Brea; E. of Brea Canyon Road, at Los Angeles County Line.	S1835	495		799	3/10/32	224	0.50	46	631	195	508	0	142	93	284
S1897-K-18	Soquel Canyon Creek, E. of Olinda; just above junction with Carbon Canyon Creek.	S1897	675		801	3/10/32	979	7.23	90	2,930	1,411	1,156	0	22	133	2,842
S1897A-K-18	Carbon Canyon Creek, NE. of Olinda; 0.5 miles below La Vida Spring, above junction of Soquel Creek.	S1897A	675		800	3/10/32	539	2.75	89	2,237	620	455	13	10	73	1,268
S1925 J-18	Hildesheim Mineral Springs, SW. of Sleepy Hollow; 0.1 miles N.E. of San Bernardino County line, 100 feet S. of Carbon Canyon Creek Road, on N. bank of creek. Use: Domestic and baths.	S1925	850		797	3/10/32	583	1.38	55	1,156	646	1,738	3	95	348	932
S508-P-13	Tile drainage outlet, NW. of Huntington Beach. Sampled at O. C. F. C. D. drainage gaging station 16 at SE. corner of Graham St. and Wintersburg Ave.	S508	4		(b)	6/ 1/32					35					
S577 P-14	La Bolsa Drainage District, tile drainage manhole, W. of Wintersburg; 200 feet E. of Springdale St. on N. line of Heil Ave. extended, N. branch of tile drains.	S577	9		715	2/15/32	219	0.36	19	192	62	1,077	13	321	82	125
S577A P-14	La Bolsa Drainage District, tile drainage manhole, W. of Wintersburg; 200 feet E. of Springdale St. on N. line of Heil Ave. extended, E. branch of tile drains.	S577A	9		716	2 15 32	113	0.19		162	30					
S585 O-14	Westminster Drainage District, tile drainage outlet, SW. of Westminster; at NE. corner of Edwards St. and Bolsa Ave.	S585	24		711	2 15 32	332	0.78		860	385					
S589-P-14	La Bolsa Drainage District, tile drainage manhole, SW. of Westminster; 0.12 miles E. of Edwards St., 15 feet S. of Slater Ave.	S589	5		701	2/ 5/32	126	0.32		235	91					
S589D P-14	Tile drainage manhole, NW. of Huntington Beach. Sampled at first manhole E. of O. C. F. C. D. drainage gaging station 15 (S589B-P-14), 0.5 miles S. of Slater Ave.	S589D	3		(b)	6/ 7/32					246					
S589E P-14	Tile drainage manhole, NW. of Huntington Beach. Sampled at second manhole E. of O. C. F. C. D. drainage gaging station 15 (S589B-P-14), 0.5 miles S. of Slater Ave.	S589E	4		(b)	6/ 7/32					212					
S595 O-14	Tile drainage outlet, SW. of Westminster; 0.75 miles S. of Westminster Ave., 15 feet E. of Golden West St.	S595	30		642 712	1/19/32 2/15/32	182 134	0.65 0.42	85	802 454	105 110	201	13	38	21	439
S599 P-14	La Bolsa Drainage District, tile drainage manhole, SW. of Westminster; at NW. corner of Slater Ave. and Golden West St.	S599	6		697	2/ 5/32	107	0.22		134	23					
S14414-O-14	Westminster Drainage District, tile drainage outlet, Westminster; on E. side of Huntington Beach Blvd., 600 feet S. of Westminster Ave.	S14414	42		713	2/15/32	189	0.55		558	178					
S14417-P-14	La Bolsa Drainage District, tile drainage manhole, N. of Westminster; at SE. corner of Huntington Beach Blvd. and Heil Ave.	S14417	24		689	2/ 5 32	60.9	0.18		253	45					
S14464-O-15	Newhope Drainage District, tile drainage outlet, S. of Garden Grove; 0.25 miles E. of Verano St., 10 feet S. of Hazard St.	S14464	72		670	1 28/32	108	0.24		387	73					
S14464A-O-15	Newhope Drainage District, tile drainage manhole 43, W. of Santa Ana; 1,100 feet W. of Newhope St. on N. line of 17th St. (Westminster Ave.).	S14464A	50		(b) (b) (b)	11/29/30 2 24/31 4/ 4 31				423 409 420	171 110 118					
S14465-O-15	Newhope Drainage District, tile drainage manhole 32, S. of Garden Grove; 250 feet E. of Verano St., 15 feet S. of W. 5th St.	S14465	70		671	1/28/32	104	0.34		357	73					
S14467-P-15	Newhope Drainage District, tile drainage manhole 26, S. of Garden Grove. Sampled at O. C. F. C. D. drainage gaging station 15, 0.25 miles E. of Verano St., 20 feet S. of Smeltzer Ave.	S14467	54		(b) (b) 638 674	11/20/30 4/ 4 31 1/18/32 1/28/32				388 346 375 345	109 80 101 87			97	36	146
S14469-P-15	Newhope Drainage District, tile drainage manhole, SE. of Garden Grove; 0.25 miles E. of Verano St., on S. line of Talbert Ave.	S14469	35		(b)	10/19/31				439	96					



Number	Location and description	Location number	Elevation of ground	Discharge in second-foot	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium (Na x 100) (Ca + Mg + Na)	Constituents (parts per million)					
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)
S14473-O-15	Newport Drainage District, tile drainage manhole 73, SE. of Garden Grove; 0.25 miles E. of Newhope St. on S. line of Trask Ave.	S14473	90	---	(b)	11/28/30	---	---	---	367	137	---	---	---	---
S14474-O-15	Newhope Drainage District, tile drainage manhole 59, S. of Garden Grove; 0.25 miles W. of Buero St., 320 feet N. of Hazard Ave.	S14474	78	---	669	1/28/32	158	0.34	---	390	138	---	---	---	---
S14475-P-15	Newhope Drainage District, tile drainage manhole, S. of Garden Grove; 50 feet N. of Wintersburg St., 20 feet E. of Newhope St.	S14475	43	---	675	1/28/32	168	0.34	40	470	174	265	2	144	51
S14476-P-15	Newhope Drainage District, tile drainage manhole, W. of Wintersburg; Sampled at manhole 500 feet S. of Wintersburg Ave., 600 feet W. of Newhope St.	S14476A	43	---	(1)	6/7/32	---	---	---	---	100	---	---	---	---
S14478B-P-15	Newhope Drainage District, tile drainage manhole, W. of Wintersburg; Sampled at manhole 700 feet S. of Wintersburg Ave., 200 feet W. of Newhope St.	S14478B	43	---	(b)	6/7/32	---	---	---	---	139	---	---	---	---
S14485-O-15	Newhope Drainage District, tile drainage manhole 81, S. of Garden Grove, 150 feet S. of W. 8th St., 20 feet W. of Buero St.	S14485	70	---	673	1/28/32	144	0.32	---	451	117	---	---	---	---
S14487-P-15	Newhope Drainage District, manhole 10, S. of Garden Grove; 0.25 miles S. of Sheltzer Ave., 20 feet W. of Buero St.	S14487	60	---	672	1/28/32	143	0.27	---	378	148	---	---	---	---
S13233-Q-15	Talbert Drainage District, tile drainage outlet, E. of Huntington Beach; 15 feet E. of Bushard St., 0.4 miles S. of Adams Ave.	S13233	9	---	(b)	3/27/31	---	---	---	676	2,275	400	9	144	71
					276	9/3/31	267.1	0.69	60	1,116	183	537	27	234	98
					640	1/18/32	324	0.62	51	1,174	316	---	---	---	---
					696	2/5/32	311	0.51	---	1,095	304	---	---	---	---
					(b)	6/1/32	---	---	---	178	---	---	---	---	---
S13252-Q-15	Talbert Drainage District, tile drainage outlet, E. of Huntington Beach; 0.5 miles S. of Garfield St. on E. line of Ward St., extended. Outlet of E. branch.	S13252	19	---	695	2/5/32	497	0.65	---	631	506	---	---	---	---
S13260-P-15	Newhope Drainage District, tile drainage outlet, NE. of Huntington Beach; 0.15 miles S. of Talbert Ave., 0.25 miles E. of Verano St.	S13260	32	---	(b)	11/28/30	---	---	---	384	112	---	---	---	---
					(b)	2/24/31	---	---	---	394	118	---	---	---	---
					(b)	4/4/31	---	---	---	374	107	---	---	---	---
					(b)	4/9/31	---	---	---	326	110	---	---	---	---
					639	1/18/32	131	0.31	43	387	108	108	27	106	39
S557-P-13	Open drainage ditch, NW. of Huntington Beach. Sampled at O. C. F. C. D. gaging station 17 on W. line of Bolsa Chico St., 1700 feet S. of Sheltzer Ave.	S557	13	---	(b)	6/1/31	---	---	---	---	100	---	---	---	---
S580A-P-14	Open drainage ditch, NW. of Huntington Beach. Sampled on E. side of Edwards St., 0.55 miles S. of Slater Ave. and 50 feet S. of point where this ditch joins drainage ditch from T. and passes under road to join main ditch on W. side.	S580A	2	---	55	6/11/31	380.2	---	---	375	1,383	---	---	---	---
S580B-P-14	Open drainage ditch, NW. of Huntington Beach. Sampled at O. C. F. C. D. drainage gaging station 15, 200 feet E. of Edwards St., 0.5 miles S. of Slater Ave. Water flows west.	S580B	2	---	(1)	12/3/30	---	---	---	294	622	---	---	---	---
					54	6/11/31	---	---	---	235	146	---	---	---	---
					(1)	6/1/32	---	---	---	---	306	---	---	---	---
S580C-P-14	Edwards Drainage District, open drainage ditch, NW. of Huntington Beach. Sampled at O. C. F. C. D. drainage gaging station 9, 1,300 feet S. of Slater Ave., 600 feet E. of Edwards St.	S580C	3	---	(1)	6/1/32	---	---	---	---	27	---	---	---	---
S599A-P-14	Open drainage ditch, NW. of Huntington Beach. Sampled at bridge on Slater Ave., 500 feet W. of Golden West St.	S599A	4	---	56	6/11/31	53.3	---	---	217	41	---	---	---	---
S599B-P-14	Union State Water Service Co., Spring at head of drainage ditch, NW. of Huntington Beach; 300 feet E. of Golden West St., 750 feet S. of Slater Ave.	S599B	4	---	(1)	12/3/30	---	---	---	217	35	---	---	---	---
					57	6/11/31	44.5	---	---	210	20	---	---	---	---
S13215-Q-14	Slough, SE. of Huntington Beach; 100 feet NE. of State (Coast) Highway, 1.3 miles NW. of Bushard St., due NE. of Well-1274-Q 14. Sampled from running water in slough.	S13215	1	---	53	6/11/31	5,626.4	---	---	244	23,167	---	---	---	---
S13222-Q-15	Talbert Drainage District, open drainage ditch, E. of Huntington Beach. Sampled at O. C. F. C. D. drainage gaging station 13 at NE. corner of Adams Ave. and Cannery St.	S13222	8	---	(b)	3/27/31	---	---	---	208	218	---	---	---	---
					(b)	6/1/32	---	---	---	64	---	---	---	---	---
S13222A-Q-14	Talbert Drainage District, open drainage ditch, E. of Huntington Beach. Sampled at O. C. F. C. D. drainage gaging station 14 at NE. corner of Adams Ave. and Newland St.	S13222A	9	---	(b)	3/27/31	---	---	---	361	570	---	---	---	---



TABLE 10. SURFACE WATERS IN LOWER SANTA ANA RIVER AREA—Continued

Number	Location and description	Location number	Elevation of ground	Discharge in section 1-foot	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
S13224-Q-14	Open drainage ditch. SE. of Huntington Beach. Sampled at NE. corner of Atlanta Ave. and Newland St. (Pennsylvania Ave.), extended. Water flows south.	S13224	4		50	6/11/31	703.3			488	1,557					
S13224A-Q-15	Open drainage ditch. SE. of Huntington Beach. Sampled at NE. corner of Cannery St. and Atlanta Ave.	S13224A	5		51	6/11/31	152.1			317	89					
S13225-Q-14	Open drainage ditch. SE. of Huntington Beach. Sampled 0.7 miles S. of Atlanta Ave. on line of Cannery St., extended.	S13225	4		49	6/11/31	970.1			275	2,801					
S13225A-Q-11	Slough. SE. of Huntington Beach. Sampled from small slough 50 feet W. of its junction with Talbert drainage ditch, 1.9 miles NW. of Bushard St., 1,000 feet NE. of State (Coast) Highway.	S13225A	2		52	6/11/31	7,033.0			238	23,858					
S13235-R-15	Open drainage ditch. SE. of Huntington Beach. Sampled 1 mile S. of Atlanta Ave. on E. side of Bushard St.	S13235	6		48	6/11/31	272			576	376					
S13242-Q-15	Talbert Drainage District, open drainage ditch. E. of Huntington Beach. Sampled at O. C. F. C. D. drainage station 11, at SE. corner of Adams Ave. and Wright St.	S13242	8		(b) (b)	3/27/31 6/1/32				516	204 153					
S13246-R-15	Talbert Drainage District, drainage pumping plant. SE. of Huntington Beach, 1,000 feet SE. of Bushard St., 500 feet NE. of State (Coast) Highway, at end of main drainage ditch.	S13246	3		(b) (b) 243	3/20/31 3/27/31 8/20/31	4,471			262 336 262	10,474 5,808 16,951	2,387	0	440	1,039	9,481
S13260B-P-15	Open drainage ditch. NE. of Huntington Beach. Sampled at SE. corner of Ellis Ave. and Verona St.	S13260B	26		244	8/20/31	536.5		61	564	772	1,457	0	243	155	914

<sup>a</sup> Includes small equivalent quantity of Carbonate ( $CO_3$ ).<sup>b</sup> Analysis by Orange County Flood Control District, Santa Ana, California.



TABLE 11. WELLS IN LOWER SANTA ANA RIVER AREA

Well number	Location and description	Location number	Elevation of well ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	(Constituents (parts per million))						
										Bicarbonate (HCO <sub>3</sub> )	Chloride (Cl)	Sulfate (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-900f-M-13	Steve Luther, W. of Cypress; 200 feet S. of Lincoln Ave., 740 feet W. of Moody St. Use: Irrigation and domestic. Casing: 6 inches. Perforated 184-206.	1056C	38	206	5	5/23/31	45.5	-----	35	226	18	36	Tr.	42	13	40
C-900f-M-13	Steve Luther, SW. of Cypress; 75 feet W. of Miller Place, 640 feet N. of Orange Ave. Use: Irrigation. Casing: 6 inches.	1057	40	84	4	5/22/31	45.0	-----	34	229	14	29	2	39	15	38
C-900h-N-13	Los Alamitos Sugar Co., Well 12, Los Alamitos; 0.15 miles E. of Los Alamitos Blvd., 25 feet S. of Cerritos Ave. Use: Irrigation.	1029C	26	(x)	(d)	4/10/31 6/22/31	-----	-----	-----	218 223	27 18	-----	-----	-----	-----	-----
C-900f-N-13	R. Longwell, Los Alamitos; 20 feet S. of Cerritos Ave., 60 feet W. of Los Alamitos Blvd. Use: Domestic. Casing: 2 inches.	1029D	25	x355	(d)	4/10/31 6/19/31 7/28/31	-----	-----	-----	250 245 232	20 16 16	-----	-----	-----	-----	-----
C-900m-N-13	Test hole, N. of Los Alamitos; at SW. corner of Ball Road and Bloomfield Ave. Casing: None.	1038A	29	5	770	3/ 2/32	1,453	1.28	86	1,552	1,722	5,190	0	190	196	2,555
C-910f-O-12	Hellman Ranch Co. (leased by R. Abbey), Seal Beach; 310 feet N. of and 1,100 feet E. of turn to west in Westminster Road at point 0.65 miles NE. of P. E. Ry. Use: Irrigation and domestic. Casing: 12 inches.	515A	10	(x)	(d)	11/10/30 1/26/31 3/ 2/31 3/21/31 6/18/31 7/28/31	-----	-----	-----	168 180 170 175 177 196	21 18 17 29 21 23	-----	-----	-----	-----	-----
C-910f-O-12	Associated Oil Co., Bryant Water Well, NE. of Seal Beach; 100 feet E. of flood control channel on San Gabriel River, 1.25 miles S. of Anaheim St. (Ocean Ave.), on Associated Oil Co. Bryant lease. Use: Industrial. Casing: 12 inches. Gravel 70-92; 187-214.	504A	4	*740	(e)	10/17/29 11/26/30 6/23/31 11/12/31	-----	-----	-----	175 175 172 169	14 13 16 14	-----	-----	-----	-----	-----
C-910w-O-13	Sunset Gun Club, E. of Seal Beach; 0.95 miles W. of Bolsa Chica St., 0.52 miles N. of Snelzer Ave., at club house. Use: Domestic. Artesian well. Casing: 2 inches.	546B	6	200	793	3/ 3/32	45.3	0.09	25	226	16	37	0	53	14	29
C-910x-O-12	Test hole, NE. of Seal Beach; at SW. corner of intersection of Chest Ave. and Los Alamitos Blvd. Casing: None.	522D	11	18	776	3/ 7/32	541	0.61	91	1,357	391	1,380	0	41	40	1,259
C-910y-O-13	Test hole, E. of Seal Beach; 1.0 miles W. of Bolsa Chica St., 0.5 miles N. of Snelzer Ave., 300 feet W. of C-910w-O-13. Casing: None.	546C	6	7	777	3/ 3/32	121	0.51	59	723	62	13	0	64	31	190
C-911a-O-13	N. R. Yorba, NE. of Seal Beach; 220 feet S. of Ocean Ave., 360 feet W. of Los Alamitos Blvd., 4,000 feet W. of Hellman Ave., 30 feet N. of C-911-O-13. Use: Domestic.	522A	12	x247	(e)	6/23/31 11/12/31 11/12/31 1,736	-----	-----	-----	203 190 204 195	14 16 13 13	-----	-----	-----	-----	-----
C-911b-N-13	F. B. Bixby, NE. of Seal Beach; 5 feet S. of Bixby Ave., 10 feet W. of Los Alamitos Blvd. (Norwalk Blvd.). Use: Irrigation and domestic. Casing: 12 inches.	521	14	x903	32	6/ 6/31	37.9	-----	83	164	14	36	0	10	2	77
C-911f-O-12	Bryant Ranch, N. of Seal Beach; 300 feet E. of San Gabriel River channel, 0.3 miles S. of Ocean Ave. Use: Domestic and stock. Casing: 5 inches.	502	7	-----	(e)	11/12/31	-----	-----	-----	188	20	-----	-----	-----	-----	-----
C-912a-O-13	Hellman Ranch, S. of Los Alamitos; 30 feet S. of Ocean Ave., 25 feet W. of Balla Chica St. Use: Irrigation.	552	20	(x)	31	6/ 6/31	45.4	-----	36	214	18	39	Tr.	47	11	43
C-912b-O-13	Hellman Ranch, NE. of Seal Beach; on S. line of Westminster Blvd., 0.51 miles W. of Bolsa Chica St. Use: Irrigation. Casing: 10 inches.	544	14	x915	33	6/ 6/31	35.7	-----	74	155	14	35	0	14	4	69
C-912c-N-13	Hellman Ranch, SW. of Los Alamitos; 0.25 miles E. of Moody St., 50 feet S. of Bryant Ave. Use: Abandoned. Casing: 4 inches.	550	29	(x)	(d)	4/13/31 6/19/31 7/28/31	-----	-----	-----	116 140 130	89 16 18	-----	-----	-----	-----	-----
C-912f-N-13	Bryant Ranch, SE. of Los Alamitos; 15 feet S. of Bryant Ave., 180 feet W. of Moody St. Use: Domestic and irrigation.	550A	-----	-----	(d)	4/10/31	-----	-----	-----	226	14	-----	-----	-----	-----	-----



TABLE II. WELLS IN LOWER SANTA ANA RIVER AREA—Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-927a-N-14	Artesia Land Co. W. of Stanton; 500 feet S. of Katella Ave., 35 feet W. of Hansen Road. Use: Irrigation.	1089A	54	x1100	(d) (d)	4/10/31 6/20/31	-----	-----	-----	-----	*221 *243	21 20	-----	-----	-----	-----
C-927b-N-14	Chas. W. Eckert, W. of Stanton; 50 feet W. of Hansen Road, 200 feet N. of Cerritos Ave. (Spring St.). Use: Irrigation and domestic. Casing: 7 inches.	1089	56	x198	22	6/5/31	48.1	-----	34	223	20	40	Tr.	56	12	45
C-927c-N-14	Bibby Ranch, SW. of Stanton; 20 feet W. of Hansen Road, 20 feet S. of Bibby Ave. Use: Irrigation and domestic. Casing: 12 inches.	581B	45	x500	36	6/5/31	53.0	-----	34	229	28	51	1	62	13	50
C-927v-N-14	Test hole, W. of Stanton; at SE. corner of Cerritos Ave. and Miller Road. Casing: None.	1079A	43	7	775	3/7/32	1500	1.77	70	1,113	2,308	5,438	0	444	455	3,180
C-948j-L-14	Homewood Mutual Water Co. Buena Park; 50 feet S. of 4th St., 65 feet W. of Stanton Ave. Use: Domestic and irrigation. Casing: 12 inches. Perforated 39 77; 153-159; 219-228; 378-398.	1102C	77	*x400	(f)	4/22/31	-----	-----	-----	232	58	5105	-----	-----	-----	-----
C-948o-L-14	Orange County Water District No. 2, Well 1. Buena Park; 90 feet S. of 4th St., 65 feet W. of Stanton Ave. Use: Municipal. Casing: 10 inches. Perforated 76-80; 124-134; 168-180.	1102B	77	*x286	(f)	4/22/31	-----	-----	-----	226	35	534	-----	-----	-----	-----
C-948s-M-14	Test hole, S. of Buena Park; on S. line of Orangethorpe Ave., 90 feet W. of Western Ave. Casing: None.	1094E	-----	10	774	3/7/32	95.1	0.30	43	345	48	122	44	59	38	105
C-950l-M-14	C. H. Hamilton, NE. of Cypress; 320 feet E. of Miller Road, 1,200 feet N. of Crescent Ave. Use: Irrigation. Casing: 12 inches. Perforated 549-563; 637-656; 687-696; 705-727; 732-746.	1075A	57	*750	8	5/22/31	51.1	-----	33	232	21	53	Tr.	46	16	42
C-950m-M-14	Mrs. Notre (formerly F. A. Harrington), NE. of Cypress; 800 feet N. of La Palma Ave., 0.6 miles W. of Hansen Road. Use: Irrigation. Casing: 12 inches. Perforated 155 210; 235 246.	1075B	62	*261	24	6/4/31	46.7	-----	29	220	20	40	Tr.	52	13	34
C-950v-M-14	Dr. R. D. Temple, E. of Cypress; 640 feet E. of Miller Road, 80 feet N. of Lincoln Ave. Use: Domestic.	1076A	58	-----	7	5/22/31	45.5	-----	34	226	18	31	1	43	14	39
C-968e-L-15	F. W. Emery Estate, Well 1. E. of Buena Park; 150 feet N. of Artesia Ave., extended, 2,400 feet E. of Magnolia Ave., 600 feet N. of A. T. & S. F. Ry. Use: Irrigation. Casing: 10 inches. Perforated 200-400.	1132A	90	x400	(e) (b)	6/9/31 6/22/31	79.6	0.14	39 40	257 268	43 39	142 149	-----	69 69	20 23	*76 *81
C-968d-L-15	F. W. Emery Estate, Well 3. E. of Buena Park; 150 feet N. of Artesia Ave., extended, 1,600 feet E. of Magnolia Ave., 400 feet N. of A. T. & S. F. Ry. Use: Irrigation. Casing: 15 1/4 inches. Perforated 109 225; 240 309.	1122B	95	x590	(e) (b)	6/9/31 7/31/31	75.3	0.16	37 42	252 290	39 37	126 132	-----	67 66	20 21	*66 *84
C-970f-K-15	Bastanchury Ranch Co., Red Tank Well 1. SE. of La Habra; 2,915 feet S. of Cedar Ave., 1,780 feet E. of Hiatt St., extended. Use: Irrigation. Casing: 14 inches. Perforated 410 575; 475 585.	1759	386	*x701	(k) (e) (b)	1921 6/9/31 6/22/31	-----	0.30 0.21	49 50 48	277 331 332	110 103 99	180 140 143	0	66 65 67	31 29 30	*130 *129 *122
C-970j-K-15	Bastanchury Ranch Co., North Laguna Well 1. SE. of La Habra; 3,120 feet S. of Cedar Ave., 2,670 feet E. of Hiatt St., 2,300 feet W. of State Highway. Use: Irrigation. Casing: 13 inches. Perforated 275-300; 300-475.	1769	435	*x727	(k) (e) (b)	1921 6/9/31 6/22/31	-----	0.71 0.50	61 63 64	329 413 396	115 135 142	189 146 182	0	68 56 58	16 28 27	*167 *196 *211
C-970n-K-15	Bastanchury Ranch Co., Lake Well 2. SE. of La Habra; 3,855 feet S. of Cedar Ave., 2,355 feet E. of Hiatt St., extended, 2,600 feet W. of State Highway. Use: Irrigation. Casing: 15 1/2 inches. Perforated 120 240; 240 311.	1769B	317	*x750	(e) (b)	6/9/31 6/22/31	126	0.24	61 64	331 327	131 121	216 231	-----	59 76	28 14	*192 *198
C-970o-K-15	Bastanchury Ranch Co., Subdivision Well 1. SE. of La Habra; 2,330 feet S. of Cedar Ave., 3,095 feet E. of Hiatt St., extended, 1,700 feet W. of State Highway. Use: Irrigation. Casing: 16 inches. Perforated 280-800.	1769C	338	*x860	(e) (b)	6/9/31 6/22/31	123	0.30 0.15	44 46	331 339	156 149	119 138	-----	80 79	35 37	*125 *133
C-971e-L-15	Bastanchury Ranch Co., Lermon Mesa Well 1. NW. of Fullerton; 1.0 miles N. of Artesia Ave., extended, 1.3 miles E. of Magnolia Ave., extended, 1,025 feet E. and 75 feet S. of NW. corner of Sec. 29, T. 3 S., R. 10 W., S. B. & M. Use: Irrigation. Casing: 12 inches. Perforated 154 176; 310 335; re-perforated 180 335.	1141	200	*x352	(e)	June, 1927	-----	-----	56	225	41	70	-----	37	11	*81



TABLE 11. WELLS IN LOWER SANTA ANA RIVER AREA Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>6</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-971f-L-15	Bastanchury Ranch Co., Coyote Well 1, NW. of Fullerton; 1.0 mile N. of Artesia Ave., extended, 1.07 miles E. of Magnolia Ave., extended, 350 feet E. and 25 feet S. of NW. corner of Sec. 26, T. 3 S., R. 10 W., S. B. & M. Use: Irrigation. Casing: 12 inches. Perforated 162 1/2, 255 2 1/2, 318 3/8.	1141A	255	*x477	(a) (e)	10/21 6/9/31	----- -----	----- -----	79 82	261 218	59 46	70 76	0 -----	20 17	7 4	136 121
C-971j-L-15	Bastanchury Ranch Co., Bastanchury Well 4, South Laguna Well 1, N. of Fullerton; 170 feet E. and 202 feet N. of W. 1/4 corner of Sec. 21, T. 3 S., R. 10 W., S. B. & M., 3,400 feet W. of Fullerton Road (State Highway). Use: Irrigation. Casing: 15 1/2 inches. Perforated 160 5/4, plugged at 573 feet. Converted oil well.	1150	342	*x3910	(e) (b)	6/9/31 6/22/31	----- 131	0.40 0.23	36 46	252 333	121 124	207 244	----- 0	103 70	30 44	197 151
C-971m-L-15	Bastanchury Ranch Co., Fullerton Heights Well 1 (formerly Bastanchury Well 6), N. of Fullerton; 2,200 feet W. of Spadra Road, 3,800 feet N. of Chapman Ave., 500 feet W. of P. E. Ry. Use: Irrigation. Casing: 12 1/2 inches. Perforated 180 7/50. Converted oil well.	1161	266	*x5202	(e) (b) (b)	6/9/31 6/22/31 7/31/31	----- 82.1 79.6	0.10 0.08 0.19	49 49 51	261 250 271	85 73 69	124 113 103	----- 8 6	59 53 50	22 21 22	104 99 101
C-971o-L-16	Bastanchury Ranch Co., Black Hill Well 3 (formerly San Juan Well 13), N. of Fullerton; 2,700 feet E. of Fullerton Road (State Highway), 1,300 feet S. and 1,100 feet E. of the NW. corner of Sec. 22, T. 3 S., R. 10 W., S. B. & M. Use: Irrigation. Casing: 15 1/2 inches. Perforated 145 6/16, plugged at 715 feet. Converted oil well.	1170B	309	*x4028	(e) (b) (b)	6/23/31 6/22/31 7/31/31	----- 90.6 88.2	0.54 0.36 0.39	69 76 70	392 336 320	117 87 78	71 103 119	----- 0 0	32 30 28	23 11 19	177 177 166
C-971p-L-15	Bastanchury Ranch Co., Black Hill Well 1 (formerly Creek Well 1), N. of Fullerton; 500 feet E. of Fullerton Road (State Highway), 1,500 feet E. and 925 feet N. of center of Sec. 21, T. 3 S., R. 10 W., S. B. & M. Use: Not used. Casing: 24 inches. Perforated 60 80, 140 100, 180 255, 275 315, 335 350, 360-490.	1170C	236	*x451	(b) (i)	10/21 10/23/26	----- -----	----- -----	46 81	332 3,267	113 247	216 173	0 -----	84 178	35 16	140 1242
C-971r-L-15	Bastanchury Ranch Co., Coyote Well 2, NW. of Fullerton; 1.0 mile N. of Artesia Ave., 0.5 mile E. of Magnolia Ave., extended, 30 feet E. and 40 feet S. of N. 1/4 corner of Sec. 30, T. 3 S., R. 10 W., S. B. & M. Use: Irrigation. Casing: 16 inches. Perforated 275-576.	1131	283	*x700	(e) (b)	6/9/31 6/22/31	----- 74.3	0.30 0.24	77 78	235 235	68 67	80 84	----- 0	22 22	7 6	132 135
C-971t-L-15	Bastanchury Ranch Co., Santa Fe Well 3, W. of Fullerton; 310 feet S. of Commonwealth Ave., 0.49 miles W. of Euclid Ave., N. of A. T. & S. P. Ry. Use: Irrigation. Casing: 16 inches. Gravel 100 170, 210 200, 300 310, 350 380, 385 401, 410 415.	1155C	121	*x515	(e) (b)	6/9/31 6/22/31	----- 101	0.21 0.13	24 29	335 314	103 75	205 158	----- 42	142 116	30 26	71 76
C-971u-L-15	Bastanchury Ranch Co., Valencia Mesa Well 1, N. of Fullerton; 800 feet E. of Euclid Ave., extended, 4,300 feet N. of Malvern Ave., 540 feet S. of N. line of Sec. 28, T. 3 S., R. 10 W., S. B. & M. Use: Irrigation. Casing: 18 inches. Perforated 210 840, shot 300, 400, 500, 525, 550, 575, 600, 625, 650, 675, 700, 725, 750, 800, 850. Converted oil well.	1161A	261	*x6024	(e) (b)	6/9/31 6/22/31	----- 99.4	0.25 0.14	50 51	270 287	92 99	90 127	----- 12	56 64	20 23	102 121
C-971v-L-15	Bastanchury Ranch Co., Reservoir Hill Well 1, N. of Fullerton; 200 feet E. of Fullerton Road (State Highway), 1,100 feet E. and 750 feet N. of center of Sec. 21, T. 3 S., R. 10 W., S. B. & M. Use: Irrigation. Casing: 16 inches. Perforated 220 565.	1170D	318	*x640	(e) (b)	6/9/31 6/22/31	----- 152	0.73 0.48	65 50	348 351	160 220	73 155	----- 0	39 91	26 37	176 175
C-972g-L-16	Union Oil Co., Well 13, SW. of Brea; 0.3 miles S. from Fullerton City limits at Fullerton Road (State Highway), then due W. 0.62 mile to cemetery, then S. 0.13 mile. Wells just S. of cemetery. Use: Irrigation. Casing: 20 inches. Perforated 30 327, 393 178, 463 185, 509 214	1789	329	*x653	(b)	7/31/31	04.7	0.46	74	332	76	122	0	27	16	172
C-972m-K-16	Union Oil Co., Well 13, S. of Brea; 50 feet N. of Golden Ave., 100 feet E. of Fontana Ave. Use: Irrigation. Casing: 16 inches. Perforated 260-635.	1799	335	*x635	(j) (i) (i) (i) (i) (b)	Sept. '26 Sept. '26 4/23/31 June, 1931 6/22/31	----- ----- ----- ----- 125	----- ----- 0.26 0.23	34 32 39 33 41	287 242 254 252 281	135 145 148 137 128	198 215 246 243 242	----- ----- ----- ----- 1	94 60 123 116 91	44 62 42 40 40	199 106 88 91 123
C-974b-M-16	Anaheim Union Water Co., Crowther Well 3, NE. of Anaheim; 200 feet S. of Orangewood Ave., 150 feet W. of Placentia Ave. Use: Irrigation. Casing: 20 inches. Perforated 108 112, 276 338.	15014A	197	*x360	79	6/19/31	71.6	-----	31	265	53	68	10	76	21	57
C-974f-M-16	Section 2 Water Co., NE. of Anaheim; 95 feet W. of Placentia Ave., 300 feet S. of Placentia and Cypress Avenues. Use: Irrigation. Casing: 16 inches.	15015A	186	340	(b)	Oct., 1918	-----	-----	32	*259	49	64	6	70	17	52



TABLE 11. WELLS IN LOWER SANTA ANA RIVER AREA—Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-974a-M-16	Anaheim Union Water Co., Crowther Well 6, NE. of Anaheim; 125 feet W. of Placentia Ave., 75 feet S. of Orangeflorio Ave., 25 feet W. of Well 5. Use: Irrigation. Perforated 280-385; 120-155.	15014E	197	*504	78 (d)	6/17/31 2/3/32			34	278	59 52	65	9	77	18	62
C-974b-L-16	Union Oil Co., Well 13, N. of Fullerton; 2,000 feet NW. of Brea Blvd., 1,700 feet N. and 125 feet W. of Center of Sec. 22, T. 3 S., R. 10 W., S. B. R. 8 M. 1. Use: Irrigation. Casing: 20 inches. Perforated 309-327, 390-398, 463-483, 500-514.	1180A	324	*653	(b) (*)	5/29/31 6/1/31	112	0.58 0.79	57 71	296 *373	108 116	167 163	Tr	20 30	48 23	*150 *187
C-975b-L-15	C. G. Coggeshall, N. of Anaheim; 500 feet W. of Spadra Road, 100 feet N. of Orangeflorio Ave. Use: Domestic. Casing: 7 inches.	1174	149	(x)	(d)	4/17/31				146	271					
C-976a-M-16	City of Anaheim, Well 6, Anaheim; 0.10 miles N. of E. La Palma St., 225 feet W. of Platt St., 25 feet W. of Well 7. Use: Irrigation. Casing: 24 inches. Perforated 310-411; 400-493; 500-610.	1185	156	*637	(t)	4/22/31				252	41	b55				
C-976b-M-16	City of Anaheim, Well 7, Anaheim; 0.19 miles N. of La Palma St., 200 feet W. of Platt St., 25 feet E. of Well 6, near Anaheim Sugar Co. plant. Use: Municipal. Casing: 24 inches. Perforated 121-115, 480-491, 513-608.	1185A	156	*642	(t) 259	7/22/31 8/27/31			27	244 259	39 38	b45 59	4	71	18	42
C-976c-M-15	City of Fullerton, Well 1, N. of Anaheim; 303 feet N. of La Palma Ave., 122 feet W. of Palm Ave. (Spadra Road). Use: Municipal. Casing: 12 inches. Perforated 310-334, 350-410.	1175D	153	*424	(t)	4/22/31				232	30	b50				
C-979p-M-16	Perry Mathias, S. of Anaheim; 35 feet S. of Ball Road, 60 feet W. of S. P. R. R., 0.21 miles E. of Los Angeles St. Use: Irrigation. Casing: 12 inches. Perforated 271-305, 317-401.	1108	150	*407	258	8/27/31	48.7		27	a214	27	44	2	50	13	32
C-980b-M-14	D. R. Williams, S. of Buena Park; 100 feet N. of S. P. R. R., 200 feet W. of Magnolia Ave. Use: Irrigation and domestic. Casing: 7 inches.	1124	97	x140	334	9/19/31	93.0	0.19	22	284	83	142	1	110	23	52
C-981-L-14	Orange County Water Works, District 2, Well 2, Buena Park, 75 feet S. of S. P. R. R., 150 feet W. of Grand Ave. Use: Municipal. Casing: 12 inches. Perforated 360-380.	1103B	73	*396	(t) 63	4/22/31 6/17/31			32	226 232	18 18	b35 49	Tr	52	19	44
C-982-L-M-14	Dr. Lee C. Demings, N. of Stanton; 45 feet W. of Dale Ave., 200 feet S. of Orange Ave. Use: Irrigation. Casing: 12 inches.	1117A	84	x100	64	6/17/31	45.9		28	220	18	25	1	51	13	31
C-983-L-M-15	P. A. Stanton, W. of Anaheim; 0.10 miles W. of Brookhurst Ave., 240 feet S. of Crescent Ave. (Olive St.). Use: Irrigation and domestic. Casing: 10 inches. Perforated 114-115, 229-230, 250-252, 375-380, 402-407, 400-403, 519-520, 640-641, 680-681, 716-749.	1140B	110	*x761	66	6/17/31	58.5		28	232	34	56	9	67	14	40
C-984-L-11	T. W. Clarke, W. of Stanton; 430 feet S. of Cerritos Ave., 100 feet W. of Western Ave., 10 feet SW. of C-984b-N-14. Use: Domestic and irrigation. Casing: 8 inches.	1099	60	(x)	(d)	4/10/31				a161	18					
C-986a-N-15	Mrs. Anna B. Taylor, E. of Stanton; 350 feet N. of Cerritos Ave., 1,200 feet E. of Magnolia Ave. Use: Irrigation and domestic. Casing: 10 inches.	1128A	84	x170	67	6/17/31	52.9		31	238	23	52	1	62	13	42
C-986j-N-15	Chris Schneider, N. of Garden Grove; 160 feet S. of Katella Ave., 1,245 feet E. of Euclid Ave. Use: Irrigation. Casing: 16 inches. Perforated below 500 feet.	1169	119	579	(t)	8/12/25			21	216	30	55		66	13	26
C-986m-N-11	American States Water Service Co., Stanton Well 1, Stanton; 1,400 feet W. of Dale Ave., 120 feet S. of Cerritos Ave. Use: Municipal.	1110B	72	(x)	65	6/17/31	59.6		11	244	34	50	1	68	17	14
C-987-L-15	R. B. Woodside, W. of Garden Grove; 1,000 feet E. of Gilbert Ave., 200 feet N. of Ocean Ave. Use: Irrigation and domestic. Casing: 12 inches.	14432	75	167	16	5/23/31	61.4		29	235	39	62	11	60	15	42
C-987L-O-14	J. E. Webber, N. of Westminster; 0.25 miles W. of S. P. R. R., 100 feet S. of Ocean Ave. Use: Not used. Sampled from flowing water. Casing: 7 inches.	592A	50	x208	(d) (d) (t)	2/28/31 3/27/31 6/19/31				*241 *236 *241	20 18 18					-- -- --



TABLE 11. WELLS IN LOWER SANTA ANA RIVER AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium (Na x 100 Ca + Mg + Na)	Bicarbonate (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-987m-N-14	Pete Page, N. of Westminster; 400 feet E. of S. P. R., 1,000 feet N. of Ocean Ave. Use: Not used. Sampled from standing water. Casing: 7 inches.	14402A	57	(K)	(d)	2/28/31				a220	20					
					(d)	3/27/31				a226	12					
					(d)	6/19/31				228	18					
C-987n-O-14	Owner unknown. N. of Westminster; 0.25 miles S. of Ocean Ave., 700 feet E. of Golden West St., near 9-foot concrete standpipe 200 feet N. of galvanized pump house. Use: Not used. Sampled from standing water. Casing: 12 inches.	583B	48	x517	(d)	2/28/31				a94	29					
					(d)	3/27/31				a99	27					
					(d)	6/19/31				a127	21					
C-987n-N-15	Ben Day, NW. of Garden Grove; 0.10 miles S. of Chapman Ave., 150 feet E. of Gilbert Ave. Use: Irrigation and domestic. Perforated 142-158.	14431B	83	*165	312	9/17/31	68.9	0.07		259	44					
C-987z-N-15	F. W. Soest, NW. of Garden Grove; 600 feet W. of Gilbert Ave., 100 feet N. of Chapman Ave. Use: Domestic. Casing: 4 inches. Perforated 80-90.	14431D	80	93	313	9/17/31	50.7	0.07	26	235	20	43	0	59	113	33
C-988a-O-15	N. M. Clinton, E. of Westminster; 150 feet W. of Canby St., 400 feet S. of Westminster Ave. Use: Domestic and irrigation. Casing: 10 inches. Perforated 133-150.	14424A	55	x153	315	9/17/31	55.4	0.07	28	223	30	53	9	62	13	37
C-988b-N-15	C. N. Jones, W. of Garden Grove; 1,000 feet W. of Magnolia Ave., 500 feet N. of Ocean Ave. Use: Domestic and irrigation. Casing: 8 inches. Perforated 74-80.	14422C	68	94	314	9/17/31	55.4	0.12	29	247	23	56	0	65	13	41
C-989b-O-14	R. F. Hazard, SE. of Westminster; 0.22 miles E. of Huntington Beach Blvd., 600 feet S. of Bolsa Ave. Use: Irrigation. Casing: 10 inches. Gravel 79 SS, 105-155, 305-385.	14415	34	*402	9	5/23/31	55.3		25	223	34	54	4	61	14	38
C-989k-O-14	R. F. Hazard, SE. of Westminster; 200 feet S. of Bolsa Ave., 1,150 feet E. of Huntington Beach Blvd. Use: Domestic. Casing: 8 inches.	14415A	35	80	6	5/23/31	47.1		28	220	18	55	Tr.	53	12	32
C-990b-O-14	Edwards Ranch (Hemstreet-lessee). SW. of Westminster; 75 feet W. of Golden West St., 0.5 miles S. of Westminster Ave. Use: Domestic. Casing: 6 inches.	594A	34	x60	333	9/18/31	47.2	0.18	28	238	16	34	0	54	12	32
C-991a-O-13	West Shores Gun Club. E. of Seal Beach; 50 feet S. of Bolsa Ave., 50 feet W. of road 1.0 miles W. of Bolsa Chico St. Use: Irrigation. Supplies lakes. Flows part time. Casing: 12 inches.	545	7	x900	(d)	11/10/30				a164	20					
					(d)	2/25/31				a142	16					
					(d)	6/19/31				a170	18					
C-991c-O-13	Blue Wing Gun Club. E. of Seal Beach; 0.25 miles S. of Bolsa Ave., 450 feet W. of Bolsa Chico St. on Gun Club property. Use: Irrigation. Supplies lake. Perforated 203-208, 235-240; 297-299.	555B	14	*x320	(d)	11/10/30				192	20					
C-991t-O-13	Blue Wing Gun Club. E. of Seal Beach; 350 feet W. of Bolsa Chico St., 75 feet S. of Bolsa Ave. Use: Not used. Flows part time and supplies lakes. Casing: 12 inches.	555A	15	x700	(d)	11/10/30				a162	18					
					(d)	3/2/31				a180	14					
C-992m-P-14	Z. D. Crane, W. of Wintersburg; 250 feet E. of Springdale St., 150 feet S. of Hill Ave. Use: Domestic. Artesian part of time. Casing: 4 inches. Open bottom well in fir (gravel) stratum.	577E	7	65	717	2/15/32	43.4	0.10	27	210	16	35	1	51	12	30
C-992n-P-14	E. Kettler, W. of Wintersburg; 200 feet W. of Springdale St., 75 feet S. of Hill Ave. Use: Not used. Formerly domestic and irrigation, now covered up.	577F	11	300	718	2/15/32	35.1	0.28	80	a198	14	11	0	11	3	73
C-992o-O-14	W. G. Lewis, S. of Westminster; 20 feet S. of Sugar Ave., 1,600 feet E. of Golden West St. Use: Irrigation.	596B	26	850	700	2/5/32	40.8	0.12	34	204	13	35	0	47	10	37
C-993d-P-14	Dooble-Chapman, N. of Wintersburg; 315 feet W. of Huntington Beach Blvd., 0.22 miles S. of Smeltzer Ave., 50 feet N. of Holt Ave. Use: Domestic. Casing: 12 inches. Perforated 208-243; 247-258.	14407	26	*203	14	5/23/31	45.3		27	210	18	40	1	50	12	30
C-993i-P-14	C. A. Prush, NE. of Wintersburg; 100 feet W. of Newland St., 350 feet S. of Hill Ave. Use: Irrigation. Casing: 7 inches.	14417C	23	240	698	2/5/32	42.9	0.08	28	210	13	38	1	52	12	32
C-995d-P-13	Long Beach Country Club. W. of Wintersburg; 0.22 miles N. of Wintersburg Ave., 0.22 miles E. of Graham St. Use: Irrigation and domestic. Casing: 12 inches. Perforated 475-525.	578	35	*537	34	6/5/31	34.3		86	a192	14	9	Tr.	7	2	79



TABLE 11. WELLS IN LOWER SANTA ANA RIVER AREA. Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)							
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	
C-995e-P-14	Mr. Buck, SW. of Wintersburg; 0.3 miles E. of Springdale St., 300 feet S. of Slater Ave. Use: Irrigation. Casing: 10 inches.	589C	5	x500	(d) (d) (d) (d)	11/ 7/30 1/26/31 3/ 3/31 3/20/31 6/18/31				a182 127 a219 a236 a285	20 19 12 14 18						
C-995g-P-14	Mr. Slater, N. of Huntington Beach; 300 feet E. of Edwards St., 600 feet S. of Talbert Ave. Cased spring in open field. Use: Irrigation. Casing: 3 foot pit.	13180	2	(x)	(d) (d) (d) (d) (d) (d) (d) (d)	11/10/30 11/25/30 1/26/31 3/ 2/31 3/20/31 6/18/31 7/27/31 8/22/31				252 249 219 233 a256 242 a248 a280	385 305 192 206 220 207 224 254						
C-995h-P-13	Sunset Land and Water Co. E. of Sunset Beach; 50 feet N. of Los Patos Ave., 150 feet W. of Algonquin Ave. Use: Municipal. Casing: 6 inches. Perforated 333-357; 384-416.	558	62	*450	(d) (d) (d) (d) 35 (d)	11/ 8/30 3/ 2/31 3/20/31 1/26/31 6/ 5/31 6/18/31 7/28/31				a180 a176 a176 163 a146 a196 a189	39 14 14 41 14 16 14		9	7	3	63	
C-995i-P-13	Bolsa Chica Gun Club, Pump House 1, SE. of Seal Beach; 0.73 miles W. of Springdale St., 10 feet S. of Slater Ave., extended. Use: Domestic. Casing: 8 inches.	569	10	54	(d) (d) (d) (d) 81 (d)	11/ 7/30 1/26/31 3/ 2/31 3/21/31 6/19/31 7/28/31 8/ 2/31				a181 178 a189 177 186 a207 a207	20 16 16 29 13 21 18		Tr.	36	8	52	
C-995j-P-13	Bolsa Chica Gun Club, Pump House 3, SE. of Seal Beach; 0.33 miles W. of Springdale St., 45 feet S. of Slater Ave., extended. Use: Irrigation. Supplies lakes. Artesian part of time. Perforated 292-332; 391-396; 721-749; 760-782; 840-848.	579E	8	*917	(d) (d) 82 (d)	11/ 7/30 3/21/31 6/19/31 6/23/31 8/27/31				a416 343 375 a223 a296	29 35 18 20 21			0	8	6	132
C-995m-P-13	George J. McDonald, E. of Sunset Beach; 0.6 miles S. of Smelter Ave., 100 feet E. of Bolsa Chica St., 450 feet S. of Hill Ave. Use: Not used. Casing: 10 inches.	557C	18	x200	(d) (d)	6/22/31 7/29/31				a177 a160	21 29						
C-995n-P-14	Mr. Ruoff, W. of Wintersburg; 200 feet S. of Wintersburg Ave., 175 feet W. of Springdale St. Use: Irrigation and domestic. Casing: 10 inches. Gravel 120-150; 184-200; 390-446.	578A	8	*537	(d) (d) (d) (d) (d) (d) (d) (d)	11/ 7/30 1/26/31 3/ 2/31 3/20/31 6/18/31 6/23/31 7/27/31 8/27/31				a173 163 a179 a178 a173 a183 a180 a189	18 14 14 14 18 14 20 18						
C-995o-P-13	Owner unknown, W. of Wintersburg; 400 feet S. of Wintersburg Ave., 30 feet W. of Graham St. drainage ditch. Use: Not used. Flows part time. Casing: 4 inches.	568B	3	(x)	(d) (d) (d) (d)	1/26/31 3/ 3/31 3/20/31 6/18/31				a190 a198 a179 a213	23 18 18 18						
C-995p-P-14	Collins Bros. N. of Huntington Beach; 450 feet N. of Slater Ave., 30 feet W. of Springdale St. Casing in open field. Use: Irrigation. Casing: 14 inches. Perforated 70-82; 306-334.	579B	5	*x354	(d) (d) (d)	1/26/31 3/ 2/31 3/20/31				197 a115 a202	16 18 14						
C-995u-P-13	Long Beach Country Club, Artesian Well 1, W. of Wintersburg; 125 feet N. of Wintersburg Ave., 600 feet E. of Graham St., in 17th fairway of golf course, interconnected to C-995t-P-13. Use: Artesian. Supplies lakes. Casing: 3 inches. Impossible to tell from which well water comes as they are interconnected underground. Both wells are same depth and 200 feet apart.	568C	5	100	27	6/ 5/31	43.5		31	204	16	38	Tr.	48	11	34	
C-995v-P-13	Long Beach Country Club, W. of Wintersburg; 1,000 feet E. of Graham St., 1,160 feet N. of Wintersburg Ave. Use: Irrigation and domestic. Casing: 4 inches.	578B	26	180	26	6/ 5/31	40.9		35	201	16	31	0	42	11	37	
C-995z-P-13	Owner unknown, W. of Wintersburg; 300 feet W. of Graham St., 200 feet N. of Wintersburg Ave. Use: Not used. Casing: 5 inches.	568D	4	10	714	2/15/32	68.9	0.08	28	183	85	75	1	74	17	45	



TABLE 11. WELLS IN LOWER SANTA ANA RIVER AREA - Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-905aa-P-13	Test hole, W. of Wintersburg; 100 feet N. of Wintersburg Ave., 20 feet W. of Graham St. O. C. F. C. D. surface water test well 37.	568E	4	-----	(d)	12/12/30	-----	-----	-----	145	53	-----	-----	-----	-----	-----
C-907-P-14	A. Steck, N. of Huntington Beach; 100 feet S. of Talbert Ave., 300 feet W. of Golden West St. Use: Domestic. Casing: 6 inches.	599	57	x110	(d)	11/7/30	-----	-----	-----	188	125	-----	-----	-----	-----	-----
					(d)	11/25/30	-----	-----	-----	209	130	-----	-----	-----	-----	-----
					(d)	1/26/31	-----	-----	-----	213	110	-----	-----	-----	-----	-----
					(d)	3/3/31	-----	-----	-----	*220	104	-----	-----	-----	-----	-----
					(d)	3/20/31	-----	-----	-----	*220	93	-----	-----	-----	-----	-----
					(d)	6/18/31	-----	-----	-----	*224	71	-----	-----	-----	-----	-----
					(d)	6/23/31	-----	-----	-----	*249	70	-----	-----	-----	-----	-----
					(d)	7/29/31	-----	-----	-----	*249	64	-----	-----	-----	-----	-----
					(d)	8/22/31	-----	-----	-----	*241	64	-----	-----	-----	-----	-----
C-907e-Q-14	The Texas Co., Huntington Beach; 90 feet S. of Yorktown St., 20 feet W. of Delaware Ave. Use: Not used.	13202	53	-----	(d)	Dec., 1930	-----	-----	-----	184	238	-----	-----	-----	-----	-----
					(d)	1/26/31	-----	-----	-----	*176	210	-----	-----	-----	-----	-----
					(d)	3/3/31	-----	-----	-----	*225	12	-----	-----	-----	-----	-----
					(d)	3/31/31	-----	-----	-----	*165	12	-----	-----	-----	-----	-----
					(d)	6/18/31	-----	-----	-----	*136	342	-----	-----	-----	-----	-----
					(d)	6/22/31	-----	-----	-----	*192	338	-----	-----	-----	-----	-----
					(d)	7/27/31	-----	-----	-----	*163	27	-----	-----	-----	-----	-----
C-907g-P-14	A. Steck, N. of Huntington Beach; 100 feet S. of Talbert Ave., 100 feet W. of Golden West Ave. Use: Domestic. Casing: 6 inches.	599C	56	x110	331	9/18/31	64.2	0.11	-----	217	71	-----	-----	-----	-----	-----
C-907h-Q-14	American States Water Service Co., Well 2 (formerly Well 8), Huntington Beach; 180 feet W. of Huntington Ave., 25 feet S. of Clay St. (Summit Ave.). Use: Not used (formerly municipal). Perforated 80 118.	13201C	48	*276	(f)	4/21/31	-----	-----	-----	305	545	135	-----	-----	-----	-----
C 907i Q 14	American States Water Service Co., Well 1 (formerly Well 7), Huntington Beach; 20 feet W. of Huntington Ave., 25 feet S. of Clay St. (Summit Ave.). Use: Not used (formerly municipal). Perforated 100 118; 214 224; 242 254.	13201A	48	*282	(f)	4 21 31	-----	-----	-----	204	75	140	-----	-----	-----	-----
C 907j-Q-14	American States Water Service Co., Well 4 (formerly Well 10), Huntington Beach; 185 feet W. of Huntington Ave., 80 feet S. of Clay St. (Summit Ave.). Use: Not used (formerly municipal). Gravel 78 126.	13201B	47	*165	(f)	4/21/31	-----	-----	-----	330	815	130	-----	-----	-----	-----
C 907k Q 14	American States Water Service Co., Well 3 (formerly Well 9), Huntington Beach; 20 feet W. of Huntington Ave., 100 feet S. of Clay St. (Summit Ave.). Use: Not used (formerly municipal). Perforated 90 111; 208 216; 228 248.	13201D	46	*262	(f)	4/21/31	-----	-----	-----	235	345	145	-----	-----	-----	-----
C 907u-P-14	Holly Sugar Co., Huntington Beach; 300 feet E. of the east end of Bolsa Ave., 1,200 feet N. of Garfield St. Use: Domestic and industrial.	13191A	60	(x)	468	10/21/31	41.7	0.12	79	*232	16	12	0	16	2	84
C 907v-Q-14	Mr. Turley, Huntington Beach; 20 feet E. of Snelzer Ave., 200 feet S. of Garfield St. Use: Not used. Casing: 8 inches. Sampled at 100-foot depth.	13191B	75	x208	469	10/21/31	537	3.22	37	198	1,757	14	0	474	110	432
C 907w-Q 14	G. Laabonne, Huntington Beach; 80 feet S. of Yorktown St., 25 feet W. of Florida Ave. Use: Domestic and irrigation. Casing: 7 inches.	13202A	60	113	466	10/21/31	40.4	0.08	32	189	20	32	Tr.	42	10	32
C-908d-O-15	L. L. Bayne, E. of Westminster; 190 feet S. of Bolsa Ave., 70 feet E. of Wright St. Use: Domestic. Casing: 7 inches.	14445A	50	x95	316	9/17/31	52.8	0.09	27	235	21	58	1	61	13	36
C 908h-P-14	American States Water Service Co., N. of Huntington Beach; 250 feet E. of Golden West St., 0.19 miles S. of Slater Ave. Use: Proposed municipal. Casing: 14 inches. Gravel 16 38; 60 85; 175 180; 254 256.	599D	4	*282	332	9/18/31	44.4	0.11	31	210	16	42	1	46	11	34
C 908h P 14	Ocean View Mutual Water Co., Wintersburg; 380 feet S. of Wintersburg Ave., 820 feet E. of Huntington Beach Blvd., 180 feet E. of B St. Use: Municipal. Casing: 7 inches.	14418	26	-----	10	5/23/31	43.8	-----	31	207	18	36	2	48	10	33



TABLE 11. WELLS IN LOWER SANTA ANA RIVER AREA—Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>6</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-999d-P-14	Mr. Brewster, S. of Wintersburg; 0.10 miles S. of Slater Ave., 300 feet W. of Huntington Beach Blvd., 160 feet N. of C St. Use: Domestic. Casing: 7 inches.	14419	30	x126	(d)	11/ 7/30	---	---	---	205	23	---	---	---	---	---
					(d)	2/25/31	---	---	---	206	20	---	---	---	---	---
					(d)	3/20/31	---	---	---	*213	18	---	---	---	---	---
					(d)	6/17/31	---	---	---	*217	20	---	---	---	---	---
					(d)	7/25/31	---	---	---	*204	18	---	---	---	---	---
					(d)	8/27/31	---	---	---	*248	18	---	---	---	---	---
C-999f-P-14	E. J. McCraven, SE. of Wintersburg; 100 feet N. of Talbert Ave., 300 feet W. of Newark St. (Pennsylvania Ave.), Use: Domestic. Casing: 12 inches, in bottom of 12-foot pit.	14419A	48	x150	(d)	11/ 6/30	---	---	---	210	25	---	---	---	---	---
					(d)	2/25/31	---	---	---	*214	23	---	---	---	---	---
					(d)	3/20/31	---	---	---	*220	20	---	---	---	---	---
					11	5/23/31	49.5	---	31	220	23	46	1	55	11	39
					(d)	6/17/31	---	---	---	*208	25	---	---	---	---	---
					(d)	7/25/31	---	---	---	*168	25	---	---	---	---	---
					(d)	8/27/31	---	---	---	*256	29	---	---	---	---	---
C-999g-P-14	Mrs. Crutchey, N. of Huntington Beach; 150 feet E. of Huntington Beach Blvd., 500 feet N. of Garfield St. Use: Not used since 1930. Casing: 7 inches. Sampled at 60-foot depth.	13211	56	x83	470	10/21/31	75.6	0.22	55	390	48	3	0	28	13	69
C-999w-P-14	R. E. MacIntosh, N. of Huntington Beach; 0.37 miles S. of Ellis St., 200 feet W. of Huntington Beach Blvd. Use: Irrigation. Casing: 10 inches. Gravel 115-125; 138-150.	13211B	60	*158	328	9/18/31	43.2	0.12	---	198	18	---	---	---	---	---
C-1007d-N-13	Jack Dennish, E. of Los Alamitos; 0.25 miles N. of Cerritos Ave., 20 feet E. of Moody St. Use: Domestic.	1058	32	---	(d)	4/10/31	---	---	---	*332	18	---	---	---	---	---
C-1007e-N-13	Los Alamitos Sugar Co. Los Alamitos; 100 feet N. of Katella Ave., 25 feet W. of Moody St. Use: Domestic.	1059A	28	---	(d)	4/10/31	---	---	---	*161	18	---	---	---	---	---
C-1073-M-17	Anabehn Eucalyptus Water Co., South Well, N. of Olive; 70 feet N. of Coronada St., 120 feet W. of Dowling St. Use: Irrigation. Casing: 18 inches. Perforated 211-225; 243-364; 459-485; 493-510.	15644	211	*x515	(d)	2/10/32	---	---	---	---	68	---	---	---	---	---
C-1078c-M-17	Pilot Water Co. S. of Richfield; 300 feet N. of Norton St. (Corona Ave.) at angle, 400 feet W. of A. T. & S. F. Ry. Use: Irrigation.	15654E	238	(x)	(d)	2/20/32	---	---	---	---	71	---	---	---	---	---
C-1081j-L-18	Anaheim Union Water Co., Holiday Well 2 (formerly Old Well 12), E. of Richfield; 475 feet N. of N. end of Yorba Bridge, 700 feet S. of A. T. & S. F. Ry., 50 feet E. of Yorba Bridge Road. Use: Irrigation. Casing: 18 inches. Perforated 40-90.	15714C	279	*x100	134	7/15/31	85.4	---	35	293	78	99	6	86	22	77
C-1081m-L-10	Santa Ana Valley Irrigation Co., Well 6, E. of Richfield; 1,000 feet N. of S. A. V. I. Co. Canal at Mexican's cabin, 1,000 feet W. of Santa Ana River, within Horse Shoe Bend, Lower Santa Ana River Canyon. Use: Irrigation.	15762A	350	---	227	8/13/31	86.5	---	33	*284	87	100	2	85	25	71
C-1082-L-18	Goodwin Mutual Water Co. E. of Richfield; 350 feet S. of A. T. & S. F. Ry., 0.7 miles E. of Richfield Road. Use: Irrigation. Casing: 18 inches.	15683	260	x200	(d)	2/ 4/32	---	---	---	---	73	---	---	---	---	---
C-1085j-L-17	Standard Oil Co. W. of Richfield; 30 feet N. of Placentia-Yorba Blvd., at point 200 feet E. of intersection with A. T. & S. F. Ry. Use: Industrial.	15653E	232	x394	(d)	4/11/32	---	---	---	---	27	---	---	---	---	---
C-1088a-L-16	Mr. Morse, SW. of Placentia; 0.21 miles S. of Placentia-Yorba Blvd., 50 feet W. of dirt road in orange orchard, 0.19 miles W. of Melrose Ave. Use: Irrigation.	15623C	214	x216	(d)	4/11/32	---	---	---	---	35	---	---	---	---	---
C-1096-L-17	Chandler Canfield Midway Oil Co., Plant 2, S. of Olinda; 1,400 feet S. of Citrus Ave., 2,400 feet N. of Yorba Linda Blvd., 500 feet E. of Prospect St., 15 feet E. of A. T. & S. F. Ry. One of three wells. Use: Domestic supply for Olinda.	15660	---	---	(d)	5/ 2/32	---	---	---	---	110	---	---	---	---	---
C-1000b-K-16	City of Brea, Well 1, Brea; 0.77 miles SE. of Pomona Ave., 0.13 miles N. of Elm St., 15 feet W. of city limits. Use: Municipal. Casing: 14 inches.	1819A	305	*680	(f)	4/22/31	---	---	---	342	45	b30	---	---	---	---
C-1006i-K-16	City of Brea, Well 2, Brea; 0.77 miles SE. of Pomona Ave., 0.06 miles N. of Elm St., 100 feet W. of city limits. Use: Municipal. Casing: 18 inches. Gravel 190-192; 208-210; 317-327; 342-348; 450-453; 535-538; 605-611.	1819B	332	*616	(f)	4/22/31	---	---	---	214	48	b20	---	---	---	---



TABLE 11. WELLS IN LOWER SANTA ANA RIVER AREA--Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-1006k-K-18	La Vida Mineral Water Co., La Vida Spring, NE. of Olinda; 150 feet N. of Carbon Canyon Road near bottling plant, 1.35 miles SW. of Orange County line, 2.70 miles NE. of main street in Olinda. Use: Domestic.	1906	790	2,035	798	3/10/32	667	5.14	97	3,187	960	0	0	10	20	1,709
C-1006l-K-16	Union Oil Co., Syndicate Well 1, N. of Brea; 200 feet E. of Brea Road, 50 feet S. of Central Ave., extended. Use: Abandoned and filled in. Casing: 17 inches. Perforated 110-300; 420-795.	1806	385	*1,125	(f)	9/12/29			49	423	589	1,181		215	165	*545
C-1006m-K-16	Union Oil Co., Union Well 4, S. of Brea; 100 feet N. of Golden Ave., 4,200 feet E. of Pomona Ave. Use: Irrigation. Casing: 16 inches. Perforated 290-620.	1809	362	*x645	(f)	Sept., '26 Oct., 1927 4/23/31			72	335	197	27		37	35	*276
C-1006n-K-16	Union Oil Co., Union Well 7, NE. of Brea; 3,300 feet E. of Pomona Ave., 1,140 feet N. of Deodora St. Use: Irrigation. Casing: 16 inches. Perforated 390-840.	1817A	461	*x630	(f)	4/23/31 6/22/31	151	0.26 0.45	62 67	*485 651 665	173 229 188	43 85 80	0	41	47	*304 305 275
C-1006o-K-17	Union Oil Co., Union Well 7, NE. of Brea; 3,300 feet E. of Pomona Ave., 1,140 feet N. of Deodora St. Use: Irrigation. Casing: 16 inches. Perforated 390-840.	1817A	461	*x630	(f)	Dec., 1927 4/23/31			39	342	103	91		68	35	*94
C-1006p-K-17	Union Oil Co., Union Well 8, NE. of Brea; 30 feet S. of Deodora St. at curve in street, 1,500 feet W. of Caroline St., extended. Use: Irrigation. Casing: 16 inches. Perforated 390-750.	1837	471	*x755	(f)	4/23/31 June, '31 6/23/31			39 39 43	332 332 342	101 73 89	73 68 66	17	59	32	*97 96
C-1006p-K-17	Union Oil Co., Union Well 10 (formerly Union Oil Co. Well Naranjal 10), W. of Olinda; 650 feet N. of Brea-Olinda Road, 0.86 miles W. of Caroline St., 300 feet W. of Valencia Ave. Use: Not used since 1927. Conglomerate 765-1196.	1858	465	*3,255	(f)	4/11/27			40 45 51 56	413 341 346 342	88 106 121 112	191 182 138 141	2	78 76 61 53	49 37 34 30	*121 128 140 152
C-1007-L-17	H. H. Hale, N. of Placentia; 65 feet E. of Valencia Ave., 0.4 miles N. of Yorba Linda Blvd. Use: Domestic.	15640	335	x311	(d)	4/11/32			44	323	149	400		81	72	*180
C-1007a-L-16	Union Oil Co., Union Well 11, NE. of Fullerton; 2,500 feet N. of Pioneer St., extended, 800 feet W. of Cypress Ave., extended. Use: Irrigation. Casing: 10 inches. Perforated 335-800; plugged at 1,635 feet. Converted oil well.	15600	388	*x3750	(f)	June, '26 Sept., '26 April, 1931			77 75 75	488 *535 625	153 166 163	132 155 55		18 16 20	32 41 37	*276 286 277
C-1007b-L-16	Bastanchury Ranch Co., Amalgamated Well 1, NE. of Fullerton; NE 1/4 of Sec. 23, T. 3 S., R. 10 W., S. B. & M. Use: Domestic and irrigation. Casing: 9 inches. Perforated 360-388. Analysis of 10/26/28 is of water found above 310 feet. The 9-inch screw casing was then driven down to case off this water and a perforated liner inserted to produce from the bottom stratum, and later analyses are of water from this stratum.	15600A	380	x388	(f)	6/15/31 7/23/31	153	0.58 0.77	76 78	497 *542	153 149	17 62	Tr.	17 15	37 29	*282 259
C-1007c-L-17	Holly Development Co., Barnette Well 1, S. of Olinda; 800 feet S. of Golden Ave., 280 feet E. of Rose Drive. Water wasted into Carbon Canyon 1,200 feet S. of Golden Ave.	15650	365		1,210	7/16/32	606	5.60		*4,069	405					*143 *33 *64
C-1101-M-17	Section 13 Water Co., E. of Anaheim; 30 feet W. of Rio Vista St., 1,850 feet S. of South St. Use: Irrigation. Casing: 16 inches. Perforated 165-170; 318-340.	15627A	185	*x345	289	8/27/31	69	0.08	31	259	53	65	9	71	18	53
C-1124b-M-16	City of Anaheim, Well 3, Anaheim; 125 feet E. of Los Angeles St., 150 feet S. of Santa Ana St., 25 feet W. of Well 4. Use: Municipal. Perforated 290-323.	1187A	149	*x333	(f)	4/22/32				195	46	655				
C-1124g-M-16	City of Anaheim, Well 2, Anaheim; 100 feet E. of Los Angeles St., 150 feet S. of Santa Ana St., in red brick pump house, 20 feet W. of Well 1. Use: Municipal. Gravel 80-125; 190-223; 268-329.	1187B	150	*333	(f)	4/22/31				226	47	635				
C-1124h-M-16	City of Anaheim, Well 4, Anaheim; 150 feet E. of Los Angeles St., 150 feet S. of Santa Ana St., 25 feet E. of Well 3. Use: Municipal. Perforated 288-323.	1187C	150	*335	(f)	4/22/31				232	47	650				
C-1130a-N-15	Wm. E. Schnitzger, N. of Garden Grove; 0.2 miles E. of Euclid Ave., 0.12 miles N. of Chapman Ave., 8 feet from 10-inch irrigation well in same pit. Use: Domestic. Casing: 7 inches. Passed through water softener for domestic use.	14461A	106	x128	(b) 311	Nov., 1918 9/17/31	69.7	0.07	31 27	222 238	44 48	40 81	9 21	68 77	12 17	45 45
C-1130f-N-15	A. D. Smiley, Well 2, N. of Garden Grove; 1,500 feet N. of Chapman Ave., 350 feet W. of Euclid Ave. Use: Irrigation and domestic. Casing: 16 inches. Perforated 155-173; 175-190.	14450	102	*x285	266	8/27/31	82.0		22	256	77	94	11	95	23	43



TABLE 11. WELLS IN LOWER SANTA ANA RIVER AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium, Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-1130b-N-15	A. D. Smiley, Well 1, N. of Garden Grove; 1,500 feet N. of Chapman Ave., 377 feet W. of Euclid Ave., 27 feet W. of C-1130b-N-15. Use: Not used. Casing: 7 inches. Perforated 122-170; and possibly from 90-105.	14450A	102	170	(4)	Nov., 1918	-----	-----	24	244	47	44	2	73	14	35
C-1154c-O-15	Mrs. A. F. Mills, S. of Garden Grove; 275 feet W. of Verano St., 150 feet S. of Trank Ave., extended. Use: Irrigation. Casing: 12 inches. Perforated 134-168.	14463A	81	*182	(4)	7/ 3/31	-----	-----	-----	*220	45	-----	-----	-----	-----	-----
C-1157b-N-15	Edward Chaffee, Garden Grove; 0.25 miles N. of Ocean Ave., 200 feet W. of Nutwood St., NW. of house and just E. of pump house. Use: Domestic and irrigation.	14452A	85	(x)	(d)	4/14/31 6/22/31	-----	-----	-----	106 *205	50 50	-----	-----	-----	-----	-----
C-1158-N-10	W. W. Dungan, E. of Garden Grove; 550 feet N. of Ocean Ave., on W. line of Buaro St., extended. Use: Irrigation. Casing: 16 inches. Gravel 90-138; 164-190; 200-212.	14482A	103	*216	207	8/27/31	58.5	-----	28	253	30	52	9	66	15	40
C-1160-O-10	George R. W. Roberts, SE. of Garden Grove; 530 feet E. of Buaro St., 600 feet S. of 17th St. (Westminster Ave.). Use: Domestic and irrigation. Casing: 7 inches.	14484	85	x140	309	9/17/31	85.7	0.08	-----	305	59	-----	-----	-----	-----	-----
C-1160d-O-10	W. M. Paquette, SE. of Garden Grove; 100 feet W. of Buaro St., 600 feet S. of 17th St. (Westminster Ave.). Use: Domestic. Casing: 2 inches.	14484E	85	18	310	9/17/31	116	0.17	26	339	94	187	18	124	34	74
C-1163a-O-10	F. M. Clingan, SE. of Garden Grove; 50 feet S. of 17th St., 80 feet W. of Berrydale Ave., extended. Use: Domestic, perched water. O. C. F. C. D. surface water Well 218.	14494B	97	20	(d) 633	9/ 9/31 1/19/32	----- 187	0.58	51	408 461	250 176	361	27	104	63	247
C-1163b-O-10	C. L. Coulson, SE. of Garden Grove; 300 feet W. of Berrydale Ave., extended, 100 feet S. of 17th St. Use: Not used. Casing: 5 inches.	14494C	97	14	634	1/14/32	166	0.40	55	723	131	161	Tr.	90	48	237
C-1160-O-15	S. D. Toal, S. of Garden Grove; 340 feet E. of Newhope St., 0.25 miles S. of 17th St. (Westminster Ave.). Use: Irrigation and domestic. Casing: 12 inches. Gravel 154-178; 192-211.	14474A	78	*211	13	5/23/31	58.6	-----	27	259	32	53	2	69	15	40
C-1167e-O-10	M. C. Heacock, W. of Santa Ana; 785 feet E. of Buaro St., 640 feet N. of Sugar Ave. Use: Irrigation and domestic. Casing: 8 inches.	14480	71	x163	15	5/23/31	60.1	-----	28	268	28	57	4	69	15	43
C-1167g-O-15	State of California, W. of Santa Ana; 270 feet S. of 5th St., 700 feet W. of Newhope St. Use: Irrigation at U. S. G. S. evaporation station	14475	70	20	(d) (b) (d) (d) (d) (d) 637	11/20/30 2/25/31 3 3/31 3/17/31 4/4/31 6/23/31 1/11/32	91.6 ----- 3 ----- ----- ----- 83.6	-----	17 -----	*261 268 281 *266 *309 *266 317	57 64 60 64 06 54 57	124	98	29	534	
C-1167h-O-15	B. Brown, W. of Santa Ana; 900 feet W. of Newhope St., 40 feet S. of 5th St. Use: Domestic.	14465C	70	-----	668	1/28/32	77.2	0.12	-----	284	55	-----	-----	-----	-----	-----
C-1167j-O-10	S. W. Blackenbaker, W. of Santa Ana; 115 feet W. of Buaro St., 20 feet S. of 5th St., 10 feet N. and 10 feet E. of old recorder well. Use: Domestic. Casing: 6 inches. Perforated 105-115.	14485B	72	115	318 (d) 667	9/17/31 9/ 9/31 1 28 32	77.6 ----- 75.3	0.09 ----- 0.10	23 -----	284 283 284	53 57 53	89	11	95	18	44
C-1167k-O-10	Test hole, W. of Santa Ana; 30 feet S. of 5th St., 155 feet W. of Buaro St., 40 feet W. of C-1167j-O-15. Casing: 10 inches. O. C. F. C. D. surface water Well 217.	14485C	72	x10	(d) 317 636 666	9/ 9/31 1/18/32 1/28/32	108 210 212	1.11 0.80 0.98	81 78	*878 *877 *899 *908	96 98 103 105	188 230	53 49	41 54	28 41	414 482
C-1168a-O-15	Mrs. A. F. Mills, S. of Garden Grove; 100 feet N. of 17th St. (Westminster Ave.), 100 feet W. of Verano St. Use: Domestic.	14464B	73	20	635	1/19/32	137	0.57	67	342	103	243	44	56	26	225
C-1174-P-10	D. C. Powers, W. of Santa Ana; 0.32 miles S. of Seltzer Ave., 25 feet E. of Buaro St. Use: Irrigation. Casing: 10 inches. Gravel 129-135.	14487A	57	*141	12	5/23/31	55.8	-----	29	238	32	50	6	62	13	40
C-1202g-P-15	G. M. Henson, E. of Wintersburg; 50 feet W. of Newhope St., 120 feet N. of Wintersburg Ave. Use: Domestic.	14478A	43	110	676	1/28/32	45.5	0.08	30	217	18	38	0	50	12	34
C-1255-P-15	Mr. Clancy, N.E. of Huntington Beach; 50 feet S. of Tallert Ave., 150 feet W. of Ward St. Use: Irrigation and domestic. Casing: 8 inches.	14459	27	x150	(b) (d) (d)	4 9 31 6/17/31 7/28/31	----- ----- -----	-----	-----	*151 *230 *263	18 35 39	-----	-----	-----	-----	-----



TABLE 11. WELLS IN LOWER SANTA ANA RIVER AREA—Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-1256a-P-15	John E. Brewer, NE. of Huntington Beach; 50 feet W. of Bushard St., 100 feet S. of Talbert Ave. Use: Domestic. Casing: 8 inches.	14439A	24	(x)	(4)	2/25/31	213			213	23					
					(4)	3/18/31	216			216	31					
					(4)	4/9/31	225			225	27					
					(4)	11/6/31	215			215	25					
C-1256b-P-15	Otto Faulkins, NE. of Huntington Beach; 0.27 miles S. of Talbert Ave., 300 feet W. of Bushard St. Use: Domestic. Casing: 6 inches.	13230	22	x150	(4)	11/6/30	210			210	20					
					(4)	2/25/31	208			208	16					
					(4)	3/17/31	216			216	16					
					(4)	6/17/31	215			215	20					
					(4)	7/28/31	259			259	21					
C-1257-Q-15	H. J. Lamb, NE. of Huntington Beach; 200 feet W. of Bushard St., 0.5 miles S. of Garfield Ave. Use: Domestic. Casing: 7 inches.	13231	12	x150	(4)	11/6/30	195			195	23					
					(4)	2/25/31	200			200	16					
					(4)	3/20/31	206			206	16					
					(4)	6/8/31	220			220	20					
					(4)	7/24/31	219			219	23					
					(4)	8/27/31	229			229	18					
C-1257i-P-14	H. T. Grove, N. of Huntington Beach; 800 feet S. of Talbert Ave., 250 feet E. of Huntington Beach Blvd. Use: Domestic and irrigation. Casing: 7 inches.	13210C	55	x135	329	9/18/31	48.5	0.09	28	220	21	46	2	56	12	33
C-1257v-Q-14	Associated Oil Co. NE. of Huntington Beach; 100 feet S. of Garfield St., 0.35 miles E. of Huntington Beach Blvd., 150 feet E. of boiler plant at Huntington Beach tank farm. Use: Boiler feed and domestic. Casing: 10 inches. Perforated 130-146; 168-182.	13211C	57	*152	59	6/16/31	45.6		32	201	16	30	1	49	13	39
C-1257w-Q-15	T. Yoshikawa, NE. of Huntington Beach; 100 feet W. of Camery St., 80 feet S. of Garfield St. Use: Domestic. Casing: 3 inches.	13221B	13	90	330	9/18/31	44.4	0.13		217	16					
C-1258i-P-15	Orange County, Cities Joint Outfall Sewer District, NE. of Huntington Beach; 600 feet S. of Ellis Ave., 100 feet W. of Verano St., extended. Use: Domestic and sewer plant supply. Casing: 5 inches.	13200A	26	x160	241	8/20/31	45.8		34	210	16	43	1	49	13	42
C-1258s-Q-15	Robert Gisler, NE. of Huntington Beach; 600 feet S. of Garfield St., 600 feet E. of Ward St. Use: Irrigation. Casing: 10 inches.	13251B	18	140	694	2, 5/32	55.5	0.10	25	244	28	53	4	68	15	37
C-1259-Q-14	F. E. Farnsworth, Huntington Beach; 250 feet N. of Indianapolis St., 200 feet E. of Hampshire Ave. Use: Domestic. Casing: 8 inches.	13213C	28	x102	327	9/18/31	40.3	0.10		198	12					
C-1259d-Q-14	T. Long, Huntington Beach; 50 feet S. of Hartford St., 130 feet E. of Huntington Ave. Use: Not used. Casing: 7 inches. Sampled at 50-foot depth. Water has H <sub>2</sub> S odor.	13203C	50	x80	457	10/19/31	48.0	0.28	44	192	60	2	0	35	10	45
C-1259e-Q-14	Mr. Renick, Huntington Beach; 100 feet N. of Elmira St., 120 feet E. of California Ave. Use: Not used. Casing: 7 inches. Sampled at 40-foot depth.	13203D	31	(x)	461	10/19/31	52.1	0.25	48	149	98	2	0	37	10	58
C-1259d-Q-14	L. W. Cady, Huntington Beach; 100 feet S. of Indianapolis St., 525 feet E. of Delaware Ave. Use: Not used. Casing: 7 inches. Sampled at 40-foot depth.	13203E	33	x130	464	10/19/31	56.9	0.14	54	223	62	24	0	37	12	75
C-1259e-Q-14	Mr. Newland, NE. of Huntington Beach; 450 feet N. of Quincy St., 150 feet E. of Hampshire Ave. Use: Domestic. Casing: 16 inches. Perforated above plug at 600 feet. Converted oil well.	13212E	53	x600	467	10/21/31	48.9	0.31	82	311	16	0	0	13	4	107
C-1259f-Q-14	Thompson oil lease, Huntington Beach; 150 feet E. of Hampshire Ave., 50 feet N. of Knoxville St., extended. Use: Domestic. Casing: 7 inches. W. S. P. 137, Well No. 1286, Santa Ana Quad.	13213B	30	x133	465	10/19/31	373	0.08	54	223	14	10	0	31	6	55
C-1260-Q-14	Mr. Newland, E. of Huntington Beach; 0.25 miles W. of Camery St., 120 feet S. of Indianapolis St. Use: Not used. Casing: 10 inches.	13223	6	(x)	(4)	11/5/30	195			195	21					
					(4)	2/25/31	200			200	17					
					(4)	3/20/31	207			207	16					
					(4)	6/17/31	216			216	14					
					(4)	7/25/31	214			214	14					
					(4)	8/27/31	256			256	14					



TABLE 11. WELLS IN LOWER SANTA ANA RIVER AREA—Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>6</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)							
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	
C-1260a-Q-15	Owner unknown. E. of Huntington Beach; 150 feet N. of Indianapolis St., 150 feet W. of Cannery St., on old pickle factory site. Use: Irrigation. Casing: 4 inches.	13223A	8	(x)	(d)	6/22/31 6/25/31 7/29/31	---	---	---	284 276 186	139 139 150	---	---	---	---	---	
C-1261-Q-14	Standard Oil Co. (lessee), Gisher Well 1. E. of Huntington Beach; 0.3 miles W. of Newland St. drainage ditch and 250 feet S. of Atlanta Ave. Abandoned oil well casing with large wooden plug. Use: Not used. Casing: 16 inches. Perforated 100-180. Sampled 10/19/31 at 100-foot depth.	13214	5	*439	(d)	11/5/30 2/2/31 3/21/31 6/8/31 7/25/31 10/19/31	---	---	---	111 123 134 104 173	30 25 34 29 32	---	---	---	---	36	
C-1261b-Q-14	Dave Stewart. Huntington Beach; 150 feet E. of Delaware Ave., 130 feet S. of Frankfort St. Use: Domestic. Casing: 7 inches.	13203A	30	x144	(d)	1930 1/26/31 3/3/31 3/31/31 6/17/31 6/22/31 7/27/31 8/27/31 10/19/31 2/18/32	393	0.40	36	209 206 238 218 212 207 223 212 192	87 82 16 64 100 104 133 389 542 453	---	---	---	10	46	112
C-1261c-Q-14	Mr. Brown. Huntington Beach; 80 feet N. of Hartford St., 100 feet W. of California Ave. Use: Domestic.	13203B	52	110	(d)	2/2/31 3/3/31 3/31/31 6/18/31 7/27/31 10/19/31 Dec., 1931	---	---	---	206 227 229 212 232 210 205	37 11 46 46 43 46 46	---	---	---	---	---	---
C-1261d-Q-14	Mr. Thompson. Huntington Beach; 150 feet N. of Quincy St. (Adams St.), 25 feet SE. of Wardlow Oil Well 1, 0.10 miles W. of Hampshire Ave. Use: Not used since April 1931 (formerly domestic).	13212	31	122	(d)	12/6/30 1/26/31 3/31/31	---	---	---	197 194 226	38 39 35	---	---	---	---	---	45
C-1261e-Q-14	Mrs. Spoonbauer. Huntington Beach; 100 feet W. of Delaware Ave., 130 feet N. of Lincoln St. Use: Domestic.	13203	32	---	(d)	1/26/31 3/3/31 3/31/31 6/18/31 6/23/31 7/27/31 Dec., 1931	52.5	0.08	36	188 227 230 219 217 216 203	35 11 29 50 52 46 32	---	---	---	---	---	---
C-1261f-Q-14	Owner unknown. E. of Huntington Beach; 50 feet W. of Hampshire St., 230 feet S. of Indianapolis Ave. Use: Not used. Casing: 8 inches. Sampled from surface of standing water.	13213	5	---	(d)	6/8/31 6/22/31 7/25/31 8/27/31	---	---	---	143 152 151 212	39 38 46 42	---	---	---	---	---	---
C-1261n-Q-14	Standard Oil Co., Farnsworth Fee Water Well 2A. E. of Huntington Beach; 160 feet E. of Hampshire Ave., 261 feet N. of Atlanta Ave. Use: Irrigation. Casing: 20 inches. Gravel 163-333.	13214B	4	*333	319	9/18/31	96.5	0.09	24	195	190	35	0	105	23	53	
C-1261w-Q-14	T. S. Ban, (lessee). E. of Huntington Beach; 30 feet S. of Atlanta Ave., 1 mile E. of Lake Ave., 100 feet W. of Newland St. ditch. Use: Domestic.	13224E	5	(x)	320 641	9/18/31 1/19/32	41.4 40.3	0.11 0.31	35 37	204 204	12 13	32 31	0	43 42	10 8	37 38	
C-1262a-Q-15	Sam Gisher. E. of Huntington Beach; 450 feet E. of Cannery St., 200 feet N. of Atlanta St. Use: Domestic.	13234	5	---	(d)	3/3/31 3/20/31 6/8/31 7/25/31 8/22/31 9/18/31	---	---	---	214 290 298 400 325 302	14 109 104 350 196 224	---	---	---	---	---	---
C-1262b-Q-15	R. L. Farnsworth. E. of Huntington Beach; 0.25 miles N. of Atlanta Ave., 150 feet W. of Bushard St. Use: Domestic. Casing: 6 inches. Open bottom well.	13233	8	x150	(d)	11/6/30 2/25/31 3/20/31 6/17/31 7/25/31 8/27/31 9/18/31	132	0.28	71	196 193 204 218 204 225 204	21 17 18 20 18 18 14	---	---	---	---	---	---
C-1262h-Q-15	Mr. Sasoku. NW. of Newport Beach; 0.37 miles S. of Adams Ave., 1.5 miles W. of Fairview Ave., between Santa Ana River and the mesa, on E. side of river. Use: Irrigation. Casing: 12 inches. Gravel 169-178; 210-243; 278-286.	13253	15	*303	(m) 656	1/7/32 1/26/32	50.6	0.40	85 89	222 249	21 30	30 20	2	8 5	4 4	95 116	



TABLE 11. WELLS IN LOWER SANTA ANA RIVER AREA—Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-1202k-Q-15	Mr. Myers, NW. of Newport Beach; 1.65 miles W. of Fairview Ave., 500 feet N. of Wilson St., extended, between Santa Ana River and the mesa on E. side of river. Use: Irrigation. Casing: 16 inches.	13254A	8	300	655	1/26/32	106	1.12	93	a314	201	0	4	10	3	229
C-1263-Q-14	T. S. Ban (lessee). E. of Huntington Beach; 0.25 miles S. of Atlanta Ave., 400 feet E. of Newland St. Wellpoint on surface water, at recorder well C 1263a Q-14. Use: Test well. Casing: 1 1/2 inches.	13224C	2	(x)	643	1/19/32	740				2,432					
C-1263a-Q-14	T. S. Ban (lessee). E. of Huntington Beach; 400 feet E. of Pennsylvania Ave. drainage ditch, 0.25 miles S. of Atlanta Ave. Use: Not used. Casing: 12 inches. D. W. R. Lab. Nos. 273 and 459 were sampled 5 feet below top of casing, or just under water surface, and D. W. R. Lab. No. 458 was sampled 100 feet below top of casing. O. C. F. C. D. has automatic water level recorder on well.	13224A	2	(x)	(d)	1/26/31				a175	16					
					(d)	3/2/31				a177	12					
					(d)	3/20/31				a171	43					
					(d)	6/8/31				a105	59					
					(d)	7/25/31				a114	60					
					(d)	8/22/31				117	59					
					(d)	9/3/31	40.3	0.03	64	107	59	21	1	14	8	56
					(d)	10/19/31	41.1	0.25	48	177	46	7	0	29	11	49
					(d)	10/19/31	39.1	0.54	67	107	60	14	0	14	7	60
					(d)	11/6/30				a148	18					
C-1263b-Q-14	T. S. Ban (lessee). E. of Huntington Beach; 0.2 miles S. of Atlanta Ave., 900 feet E. of Newland St. (Pennsylvania Ave.) drainage ditch, 500 feet E. of C-1263a-Q-14. Use: Not used, formerly irrigation. Casing: 10 inches.	13224B	3	(x)	(d)	11/6/30				a203	25					
					(d)	6/8/31				a128	13					
					(d)	6/17/31				a94	16					
					(d)	7/25/31				a121	25					
C-1265-Q-15	Mr. Gisler. E. of Huntington Beach; 0.15 miles S. of Atlanta Ave., 0.25 miles W. of Bushard St. Use: Not used, formerly irrigation and domestic. Casing: 6 inches.	13234A	7	x200	(d)	11/6/30				182	20					
					(d)	2/2/31				a208	18					
					(d)	3/3/31				a199	17					
					(d)	3/20/31				a163	18					
					(d)	6/8/31				110	27					
					(d)	7/25/31				a119	29					
C-1266-Q-15	Laguna Beach County Water District, Well 2. E. of Huntington Beach; 100 feet W. of Bushard St., 800 feet S. of Atlanta Ave. Use: Municipal. Casing: 16 inches. Perforated 98-143.	13234B	8	*x190	(d)	11/7/30				198	21					
					(d)	2/2/31				a216	12					
					(d)	2/25/31				a203	14					
					(d)	3/18/31				a215	16					
					(d)	6/3/31	41.3		42	a204	16	24	0	39	10	47
					(d)	6/6/31				a225	50					
					(d)	6/17/31				a221	18					
					(d)	6/23/31				a221	18					
					(d)	7/24/31				a220	39					
					(d)	8/22/31				a225	18					
266n-Q-15	Laguna Beach County Water District, Well 1. E. of Huntington Beach; 1,100 feet S. of Atlanta Ave., 100 feet W. of Bushard St., 300 feet S. of C-1266-Q-15. Use: Municipal. Casing: 16 inches. Perforated 100-163.	13234K	8	*x410	42 677	6/13/31 1/28/32	41.0 40.4		42	a201 214	16 14	27	0	40	9	45
C-1268a-Q-15	The Irvine Co., Santa Ana River Well 2. E. of Huntington Beach; 875 feet E. of Bushard St., 1,890 feet S. of Atlanta Ave. Middle well of three. Use: Not used. Casing: 18 inches. Perforated 100-125.	13244B	7	*x155	(k) (d) (d)	Dec., 1927 6/8/31 6/20/31			62	225 a214 a212	92 49 46	23		32	10	*92
C-1268b-Q-15	The Irvine Co., Santa Ana River Well 1. E. of Huntington Beach; 950 feet E. of Bushard St., 1,390 feet S. of Atlanta Ave. North well of three. Use: Not used. Casing: 18 inches. Perforated 95-120.	13244C	7	*x262	(k)	Oct., 1927			44	222	43	17		40	12	53
C-1268c-Q-15	City of Newport Beach, Newport Beach Well 4. E. of Huntington Beach; 85 feet E. of Bushard St., 265 feet S. of road which is 0.5 miles S. of Atlanta Ave. Use: Municipal. Casing: 18 inches. Perforated 100-200. Water has H <sub>2</sub> S odor.	13235C	6	*x234	(d) (d)<											



TABLE 11. WELLS IN LOWER SANTA ANA RIVER AREA Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-1208g-Q-15	City of Newport Beach, Well 6. E. of Huntington Beach; 229 feet E. of Bushard St., 265 feet S. of road which is 0.5 miles S. of Atlanta Ave. Use: Municipal. Casing: 18 inches. Perforated 100-142.	13235	6	*330	(1)	4/21/31	---	---	---	214	66	60	---	---	---	---
C-1208i-Q-15	City of Newport Beach, Well 5. E. of Huntington Beach; 229 feet E. of Bushard St., 415 feet S. of road which is 0.5 miles S. of Atlanta Ave. Use: Municipal. Casing: 18 inches. Perforated 190-260; 276-300; 312-330.	13235B	6	*336	(1) 678	4/21/31 1 28 32	57.6	0.26	---	229 *229	48 7.3	618	---	---	---	---
C-1209-Q-15	Fairview Farms. E. of Huntington Beach; 0.75 miles E. of Bushard St., 150 feet N. of road which is 0.5 miles S. of Atlanta Ave., 300 feet E. of east levee of Santa Ana River. Use: Not used. Casing: 16 inches. Sampled from surface of standing water.	13254	8	(x)	(d) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d) 680	11/25/30 2/25/31 3/18/31 6/6/31 6/18/31 7/24/31 1/28/32	---	---	---	*511 *507 *536 *564 *391 *484 *460	695 659 670 678 660 670 682	---	---	---	---	---
C-1260b-Q-15	Fairview Farms, Well 2. E. of Huntington Beach; 1,050 feet E. of Bushard St., 10 feet S. of road which is 0.5 miles S. of Atlanta Ave., 50 feet W. of C-1269a-Q-16, 20 feet W. of pump house. Use: Irrigation and municipal. Casing: 12 inches.	13245H	7	290	43 (d) (d) (d)	6/13/31 7/8/31 7/27/31 8 22 31	826	---	74	250 *247 *256 *274	142 139 139 104	2	0	27	10	146
C-1270-Q-15	Fairview Farms, Well 3. E. of Huntington Beach; 1,830 feet E. of Bushard St., 75 feet S. of road which is 0.5 miles S. of Atlanta Ave. Use: Irrigation and municipal. Casing: 18 inches. Gravel 126-267.	13245A	7	*270	(d) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d) 40 (d) (d) (d) (d) (d) (d) 323	11/5/30 11/25/30 12/6/30 3/2/31 3/18/31 6/13/31 6/18/31 7/8/31 7/27/31 8/22/31 9/18/31	---	---	247 244 247 235 *260 268 *288 *207 *225 *283 265	162 156 146 164 186 209 186 203 221 232 234	0	0	41	12	165	
C-1274-Q-14	Negro Colony, 1.3 miles N. of Talbert Road. S. of Huntington Beach; 1.3 miles W. of Bushard St., 100 feet S. of State Highway, on beach in sand, 900 feet W. of bridge. Use: Not used. Casing: 10 inches. Perforated 150-170. Sampled from surface of standing water.	13215	11	*172	(d) (d) (d)	Jan., 1931 3/3/31 7 24 31	---	---	---	*335 *391 117	11,661 4,618 18,236	---	---	---	---	---
C-1274b-Q-14	Globe Petroleum Co., Judd Well 1. SE. of Huntington Beach; 4,957 feet S. and 2,994 feet E. of NW. corner of Sec. 13, T. 6 S., R. 11 W., S. B. & M., 100 feet E. of Newland St., 100 feet N. of Banning Ave. Use: Not used. Casing: Old oil casing with nipple and 3-in. tee. Gravel 289-540, 664-694, 739-743; 750 NW, 811 S26. Sampled from surface of standing water.	13225A	4	*4,980	(d) (d) (d)	6/6/31 6/23/31 7/25/31	---	---	---	*59 *48 61	2,753 3,145 3,508	---	---	---	---	---
C-1274c-Q-15	Test hole. SE. of Huntington Beach, 15 feet NW. of Bushard St., 200 feet SW. of turn in Bushard St., 1,500 feet from State (Coast) Highway. Use: None. Total acidity as CaCO <sub>3</sub> , 1,500 ppm. H=31 ppm. Iron=5 ppm.	13236	3	11	778	3 4 32	4,980	2.94	81	0	13,104	5,658	0	955	646	*803
C-1274i-Q-15	H. A. De Wolf. E. of Huntington Beach, 1,300 feet E. of Santa Ana River, 30 feet S. of dirt road which is 0.5 miles S. of Atlanta Ave. (road east of river curves to south). Use: Domestic and dairy. Casing: 12 inches.	13255A	10	x68	324	9/18/31	189	0.73	56	327	368	151	0	112	34	244

\* Log in files of Division of Water Resources.

x Water levels in files of Division of Water Resources.

a Includes small equivalent quantity of Carbonate (CO<sub>3</sub>).b Sulphate (SO<sub>4</sub>) determined by turbidity method.

c Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.

d Analysis by Orange County Flood Control District, Santa Ana, California.

e Analysis by Los Angeles County Flood Control District, Los Angeles.

f Analysis by California State Department of Public Health, Bureau of Sanitary Engineering.

g Information from H. M. Bergen, Brea, California.

h Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.

i Analysis by Griffon-Hasson Laboratory, Los Angeles, and recalculated from compounds by H. M. Bergen.

j Analysis by Union Oil Co. of California.

k Analysis by University of California, River-side, California.

l Analysis by Shell Oil Co. of California, obtained from owner.

m Analysis by City of Los Angeles, Biological Laboratory; W. A. Lynch, analyst.



TABLE 12. WELLS IN LOWER SAN GABRIEL RIVER AREA

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 (Ca + Mg + Na)	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-240s-I-13	Harriet W. Strong Estate. S. of El Monte; 0.32 miles NW. of U. P. R., 0.31 miles SW. of Walnut Ave. Use: Irrigation. Casing: 14 inches.	2948A	207	x-----	(d)	9/18/24	-----	-----	15	-----	15	28	-----	23	18	<11
C-801b-I-13	City of Whittier, Well 5. NW. of Whittier; 162 feet SW. of Whittier Blvd., 668 feet NW. of Guirado St. Use: Municipal. Casing: 26 inches. Perforated 45-70; 135-142; 150-162; 315-330; 344-356; 362-370; 373-380; 555-560; 625-637.	1620E	172	*x680	(d)	4/12/28	-----	-----	21	-----	18	52	-----	62	11	25
C-801d-I-13	City of Whittier, Well 6. NW. of Whittier; 639 feet NW. of Guirado St., 800 feet SW. of Whittier Blvd., 700 feet SW. of Well 5. Use: Municipal. Casing: 20 inches. Perforated 6-541.	1620F	172	*x541	(d) (e) 127	4/12/28 7/13/31 7/14/31	----- ----- 50.9	-----	22	238 232	14 20 16	48 57 58	----- ----- 1	55 65	10 14	<23 31
C-804a-I-13	City of Whittier, Well 7. NW. of Whittier; 2,000 feet N. of Beverly Blvd., 400 feet W. of San Gabriel River. Use: Municipal. Casing: 18 inches. Perforated 55-100; 136-160; 256-265; 687-694; 716-722.	2938	187	*x1,000	(d) (e) 125	12/9/29 12/30/29 7/13/31 7/14/31	----- ----- 45.9	-----	35	-----	11	28	-----	38	6	<30
C-804t-I-13	Pico County Water District, Well 1. Pico; 50 feet W. of Church St., 1,000 feet N. of Whittier Blvd. Use: Municipal. Casing: 12 inches. Perforated 40-76; 221-226; 243-248; 339-347; 354-360; 405-413.	2929D	181	*x435	(d) 124 (f)	1/22/30 7/14/31 11/25/31	----- 41.5	-----	16	214 185	11 6 6	44 34 6	----- ----- -----	59 55	11 12	<17 22
C-804aa-I-13	City of Whittier, Well 8. NW. of Whittier; 300 feet N. of Strong Ave., extended, 0.09 mile N. of Well C-804a-I-13. Use: Municipal. Casing: 24 inches.	2938A	188	x302	(e) 126	7/13/31 7/14/31	----- 38.4	-----	18	212 195	14 5	48 31	----- -----	53	11	18
C-805z-I-12	S. H. Laughlin. E. of Montebello; 400 feet N. of Beverly Blvd., 100 feet W. of Lexington Road. Use: Domestic. Casing: 2 inches.	2918K	184	40	1040	6/6/32	54.6	0.17	34	223	36	40	6	54	12	45
C-814f-I-13	Mrs. Mary Phelan. NW. of Whittier; 1,690 feet S. of Whittier Blvd., 2,400 feet W. of Norwalk Road. Use: Irrigation. Casing: 18 inches. Perforated 158-167; 176-251; 350-382; 473-481.	1620R	170	*x509	62	6/17/31	51.6	-----	23	250	13	38	2	62	15	29
C-815o-I-13	Z. Brown. NW. of Whittier; 700 feet W. of Passons Blvd., 125 feet N. of Dunlap Crossing Road. Use: Domestic. Casing: 5 inches.	1610F	171	x50	(f) 1677	4/21/32 1/10/33	----- 47.4	0.08	19	325 232	28 13	38	5	63	14	<23
C-816v-J-13	Joseph Blacker. Los Nietos; 50 feet N. of P. E. Ry., 400 feet W. of Los Nietos Road. Use: Domestic. Casing: 5 inches. L. A. C. F. C. D. and D. W. R. analyses on 11/9/31 are from same sample.	1623D	150	100	(f) (f) 558 1663	6/29/31 11/9/31 11/9/31 12/30/32	----- ----- 117 71.1	0.13	20	411 429 464 314	51 60 55 27	----- ----- 88	----- ----- 3	----- ----- 88	----- ----- 24	----- ----- 37
C-817a-J-12	A. T. & S. F. Ry. River; 120 feet NW. of Topeka St., 95 feet NE. of A. T. & S. F. Ry. back of A. T. & S. F. Ry. station. Use: Domestic. Casing: 12 inches.	1602C	155	x148	128	7/14/31	77.9	-----	19	324	23	129	4	107	22	40
C-818d-J-13	Pete G. Martinez. N. of Santa Fe Springs; 95 feet NW. of Santa Fe Springs Road, 2,165 feet NE. of Los Nietos Road. Use: Domestic. Casing: 5 inches. L. A. C. F. C. D. and D. W. R. analyses on 11/9/31 are from same sample.	1644C	143	x81	(f) (f) 557 1678	7/1/31 11/9/31 11/9/31 4/21/32	----- ----- 144 137	0.21	29	378 341 418 380	121 117 119 106	----- ----- ----- 273	----- ----- ----- 1	----- ----- ----- 153	----- ----- ----- 41	----- ----- ----- 105
C-819-J-13	H. F. Reimels. S. of Whittier; 50 feet S. of Mulberry Ave., 300 feet E. of Laurel Ave. Open casing on N. side of tank house. Use: Not used. Casing: 8 inches. L. A. C. F. C. D. and D. W. R. analyses on 11/9/31 are from same sample.	1604	150	x50	(e) (f) (f) 540 (f)	Oct., 1918 6/29/31 11/9/31 11/9/31 4/27/32	----- ----- ----- 320	-----	33	397 326 397 380	236 335 305 315 312	1,011 ----- ----- -----	37 ----- ----- -----	324 ----- ----- -----	81 ----- ----- -----	262 ----- ----- -----
C-819a-K-13	J. W. Neimier. E. of Santa Fe Springs; 40 feet W. of Victoria Ave., 0.43 mile NE. of Telegraph Road (Los Nietos Road). Use: Irrigation. Perforated 28-48.	1666	148	*x75	231	8/13/31	178.4	-----	39	407	211	256	22	144	60	74
C-819b-K-13	Colima Tract Water Co., Well 1. E. of Santa Fe Springs; 0.35 mile SW. of Mulberry Drive, 20 feet SE. of Gunn Road. Use: Irrigation. Casing: 18 inches. Gravel 23-57; 104-112; 134-145.	1665	145	*x161	(e) 1150	July, 1931 7/7/32	----- 185	0.42	46	340 400	124 178	55 390	----- 4	106 149	70 67	20 1
C-819c-K-13	Colima Tract Water Co., Well 6. E. of Santa Fe Springs; 0.13 mile NW. of Gunn Ave., 10 feet NE. of Colima Ave., 0.45 mile SW. of Mulberry Drive. Use: Irrigation. Casing: 14 inches. Perforated 170-173; 180-184; 225-226; 239-241; 286-290; 298-	1665A	143	*x379	(e)	July, 1931	-----	-----	41	344	232	1,070	-----	264	120	<375



TABLE 12. WELLS IN LOWER SAN GABRIEL RIVER AREA—Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K mhos per centimeter at 25 °C)	Boron ppm	Per cent sodium Na x 100 Ca+Mg+Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-819d-J-13	Mr. Johnson, S. of Whittier; 90 feet SW. of Lambert Road, 150 feet NW. of Walnut Ave. Use: Irrigation.	1674	183	x-----	( )	7/17/31				254	163					
C-819i-K-13	Victor Reis, E. of Santa Fe Springs; 0.46 mile SW. of Mulberry Drive, 0.13 mile SE. of Gunn Road, 30 feet SW. of Colima Ave. Use: Irrigation. Casing: 12 inches. L. A. C. F. C. D. and D. W. R. analyses on 11/9/31 are from same sample.	1665G	182	x150	( )	7/1/31				342	192					
					( )	11/9/31				312	185					
					561	11/9/31	363			324	165					
					( )	4/27/32				342	192					
C-819k-K-13	J. P. Thompson, E. of Santa Fe Springs; 0.32 mile SW. of Mulberry Drive, 40 feet NW. of Mills Ave. Use: Domestic. Casing: 10 inches. L. A. C. F. C. D. and D. W. R. analyses on 11/9/31 are from same sample.	1665H	146	108	( )	7/1/31				349	209					
					( )	11/9/31				319	170					
					536	11/9/31	234			369	180					
					( )	4/27/32				395	185					
C-819r-K-13	J. P. Thompson (Paul Castro, lessee), E. of Santa Fe Springs; 0.45 mile SW. of Mulberry Drive, 80 feet NW. of Mills Ave., 80 feet NE. of Colima Ave., 70 feet SE. of C-819j-K-13. Use: Domestic. Casing: 16 inches. L. A. C. F. C. D. and D. W. R. analyses on 11/9/31 are from same sample.	1665M	146	450	( )	7/1/31				392	60					
					( )	11/9/31				366	57					
					559	11/9/31	95.0			381	55					
					( )	4/27/32				376	71					
C-820j-K-13	Victor Reis, E. of Santa Fe Springs; 0.12 mile SW. of Mulberry Ave., 75 feet NW. of Mills Ave., 300 feet NE. of Broadway. Use: Irrigation. Casing: 14 inches. L. A. C. F. C. D. and D. W. R. analyses on 11/9/31 are from same sample.	1675A	153	-----	( )	7/1/31				242	160					
					( )	11/9/31				242	153					
					556	11/9/31	131			253	151					
					( )	4/27/32				268	163	257	23	125	52	94
					1680	1/9/33	139	0.2	28	247	158					
C-821c-J-13	Colima Tract Water Co., Well 10, E. of Santa Fe Springs; 0.16 mile NW. of Painter Ave., 15 feet N. of Barton Road. Use: Irrigation. Gravel 40.5"; ss 102"; 131 134, 535 545, 558 562; 567 570, 590-594; 604 624.	1645H	157	*648	( )	July, 1931			40	325	114	336		104	50	149
C-822j-J-13	R. S. Savery, SW. of Whittier; 100 feet W. of P. E. Ry., 400 feet S. of Center St. Use: Industrial. Casing: 8 inches. Perforated 44-59; 197-206.	1633	154	*217	228	8, 13/31	121.5		26	400	50	313	18	160	40	89
C-822y-K-13	Barnhart-Morrow Lease, W. of Santa Fe Springs; 0.25 mile N. of Little Lake Road, 50 feet W. of Norwalk Blvd. (Puente-Mills Road). Use: Industrial. Casing: 6 inches. L. A. C. F. C. D. and D. W. R. analyses on 11/9/31 are from same sample.	1626P	140	-----	( )	7/17/31				390	300					
					( )	11/9/31				380	288					
					537	11/9/31	167			399	300					
					( )	4/27/32				400	250					
C-824y-K-13	A. Fraser, N. of Norwalk; 0.12 mile N. of Clark Ave. (Little Lake Road), 40 feet E. of Pioneer Blvd. (Shamrock Road). Use: Domestic.	1616M	124	200	1335	9/8/32	242	1.25	21	314	600	79	0	268	63	115
C-825-J-12	A. O. Houghton, W. of Santa Fe Springs; 80 feet S. of Anaheim-Telegraph Road, 150 feet E. of Orr and Day Road, N. of tank house. Use: Domestic. Casing: 10 inches.	1615C	136	x48	( )	6/29/31				269	14					
					( )	4/21/32				251	18					
					1662	12/28/32	51.3	0.07	21	244	12	54	1	63	16	28
C-825r-K-12	Mr. Hathaway, N. of Norwalk; 100 feet S. of Little Lake Road, 575 feet E. of Day and Orr Road. Use: Irrigation. L. A. C. F. C. D. and D. W. R. analyses are from same sample.	1616D	124	200	( )	10/15/30				273	17					
					( )	6/29/31				269	16					
					( )	11/9/31				268	20					
					531	11/9/31	55.6			281	16					
					803	3/23/32	56.1	0.09	24	281	14	51	2	70	16	34
C-825y-K-13	Mrs. K. Carter, N. of Norwalk; 0.12 mile W. of Pioneer Blvd. (Shamrock Road), 0.15 mile N. of Little Lake Road. Use: Irrigation. Casing: 12 inches. Lab. No. 1344 was analyzed at same time as No. 1334 and was kept in glass container stoppered with cork.	1616I	127	212	1344	3/15/32	102	0.49		302	144					
					1334	9/8/32	85.5	0.35	21	299	98					
C-826b-J-12	Walnut Irrigation District, Well 1, Rivera; 25 feet E. of Passons Blvd., 0.5 mile N. of Telegraph Road, in brick pump house. Use: Irrigation. Casing: 18 inches. Perforated 233 278; 337-365; 383-430.	1603I	152	*455	129	7/14/31	42.4		27	217	13	35	2	53	13	32
C-828f-J-12	Downey County Water District, Well 2, Downey; 100 feet NW. of La Reina St., 490 feet NE. of 7th St. Use: Municipal. Casing: 16 inches.	1575B	124	x574	131	7/15/31	47.9		20	250	13	28	9	63	14	25
C-829a-J-11	Rio Hondo Country Club, NW. of Downey; 200 feet NW. of Old River School Road, 0.5 mile SW. of Clara St. (Hunt's Crossing Road). Use: Irrigation and domestic. Casing: 14 inches. Perforated 356-408.	1554B	118	*449	137	7/15/31	46.9		21	253	13	22	2	60	14	25
C-829j-J-11	L. W. Jordan, NW. of Downey; 125 feet N. of Clara St., 200 feet E. of Rio Hondo, 0.17 mile E. of Old River School Road. Use: Domestic. Casing: 8 inches.	1564	127	x90	1149	7/7/32	71.4	0.21	32	336	28	61	0	76	17	57











TABLE 12. WELLS IN LOWER SAN GABRIEL RIVER AREA—Continued

Well number	Location and description	Locat on number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Concentration (parts per million)		
														Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-861f-K-12	Joe Lewis, S. of Downey, 315 feet W. of Woodruff Ave., 590 feet N. of Foster Road. Use: Irrigation. Casing: 12 inches.	1588H	94	105	136	7/15/31	64.0	-----	28	320	25	51	0	80	16	47
C-861h-L-12	Jim Blythe, Well No. 1, NE. of Bellflower; 109 feet S. of Washington Blvd., extended east from turn in street, 600 feet E. of Woodruff Ave. Use: Irrigation. Casing: 12 inches. Perforated 109, 132, 140.	980B	82	*147	73	6/18/31	62.9	-----	22	249	34	51	0	81	22	38
C-865e-K-12	Downey County Water District, Well 1. Downey; 100 feet NE. of Davis St., 125 feet NW. of Dolan St. Use: Municipal. Casing: 16 inches. Perforated 345, 365, 465, 485, 536, 551, 561, 572.	1560A	115	*x008	130	7/15/31	45.8	-----	23	247	13	25	3	61	13	28
C-872d-K-11	Los Angeles County Farm, Well 7. SW. of Downey; 735 feet NE. of Imperial Highway, 70 feet NW. of Rives Ave. Use: Irrigation. Casing: 18 inches.	1547A	100	530	130	7/15/31	53.4	-----	21	277	18	28	1	68	16	29
C-872f-K-11	Los Angeles County Farm, Well 4. SW. of Downey; 1,740 feet SW. of Imperial Highway, 1,000 feet NW. of Rives Ave., extended in rear of boiler house at water tank tower. Use: Industrial. Casing: 12 inches. Perforated near 500, 503, 647, 1327, 1329.	1537C	93	*1,493	138	7/15/31	54.3	-----	38	217	28	65	0	56	12	53
C-872m-K-11	Rueliti Bros. Packing Co., E. of Southgate; 100 feet W. of U. P. R. R., 0.25 mile N. of Imperial Highway (Norton Ave.), E. of entrance of Rio Hondo into Los Angeles River, in iron pump house at dairy.	1520A	98	x-----	1660	1/20/33	42.3	0.10	27	238	12	14	Tr.	47	15	29
C-874a-K-11	J. A. Quill. SW. of Downey, 300 feet S. of Imperial Highway, 250 feet E. of Downey Ave. Use: Irrigation and domestic. Casing: 12 inches. Perforated 409, 423, 440, 471, 480, 491.	1557A	105	*501	140	7/15/31	47.6	-----	21	253	14	29	4	62	13	25
C-877k-L-11	Mr. Johnson. E. of Compton; 25 feet S. of Washington St., 200 feet E. of Los Angeles River Bridge. Use: Domestic. Casing: 8 inches.	910	67	x350	( ) 855	3/3/32 3/25/32	----- 50.4	0.16	35	225 224	28 18	50	0	50	13	41
C-877l-L-11	George Faulkner. E. of Compton; 3754 feet E. of Atlantic Ave., 200 feet S. of Washington Blvd., 70 feet W. of C-877k-L-11, in back of house. Use: Municipal. Casing: 4 inches. Perforated 95, 110.	910D	71	115	76	6/18/31	48.1	-----	32	241	10	34	0	54	13	40
C-877n-L-11	Test hole. E. of Compton; at SE. corner of Orange St. and Center St. Use: None.	921E	67	10	736	2/11/32	98.5	0.10	18	613	21	61	0	130	41	52
C-885b-L-11	Montana Land Co., Well 11. S. of Clearwater; 100 feet W. of Cerritos Ave., 2200 feet S. of Artesia St., 30 feet S. of N. property line. Use: Irrigation. Casing: 12 inches. Perforated 925-939.	953A	58	*1,061	72	6/18/31	40.5	-----	31	229	9	18	Tr.	49	15	38
C-885d-L-11	City of Long Beach, North Long Beach Well 4, Funderburk Well, S. of Clearwater, 500 feet E. of Paramount Blvd. (Ocean Ave.), 130 feet S. of Bush St., 900 feet S. of Artesia Ave. Use: Municipal.	942C	60	200	86 ( ) ( ) ( ) ( ) ( )	6/19/31 7/5/32 8/3/32 9/13/32 10/1/32 11/1/32	40.0	-----	24 25 24 31 40 47	232 237 194 213 201 190	9 12 9 13 19 24	6 15 16 21 31 35	Tr.	53 55 53 49 44 40	11 8 7 7 6 5	25 26 23 31 41 50
C-886f-L-11	A. Nigg. E. of Clearwater; 170 feet S. of Washington St., 670 feet E. of Cerritos Ave., 250 feet E. of C-886b-L-11. Use: Irrigation. Casing: 5 inches.	950A	80	172	77	6/18/31	44.6	-----	24	229	13	30	0	56	13	29
C-886g-L-11	Test Hole, Bellflower; at SW. corner of Clark Ave. and Center St. Casing: None.	961A	71	14	740	2/12/32	46.3	0.15	21	259	13	23	0	57	16	25
C-887b-L-11	Montana Land Co., Well 8. S. of Bellflower; 2300 feet S. of Artesia Ave., 0.5 mile E. of Cerritos Ave., 50 feet W. of Clark Ave. Use: Irrigation. Casing: 20 inches. Perforated 778, 790, 852, 871.	963	62	*082	68	6/18/31	42.2	-----	24	232	13	15	0	51	17	28
C-888f-L-12	Mrs. Schaefer. N. of Artesia; 0.15 mile S. of Apple St., 180 feet E. of Grady Road. Use: Irrigation and domestic. Casing: 12 inches. Perforated 102, 122.	1012	61	*131	19	6/4/31	52.1	-----	25	262	18	42	0	67	15	36
C-890c-L-12	J. W. Smith. Artesia; 280 feet N. of Orange St., 470 feet E. of Grady Road. Use: Irrigation and domestic. Casing: 12 inches. Perforated 167, 171, 197, 203, 203, 224.	1013	58	*239	21	6/4/31	42.1	-----	24	232	7	22	0	54	10	26



TABLE 12. WELLS IN LOWER SAN GABRIEL RIVER AREA—Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific resistivity (K x 10) at 25°C)	Boron ppm	Per cent sodium (Na x 100) (Ca + Mg + Na)	Constituents (parts per million)						
										Bicarbonate (HCO <sub>3</sub> )	Chloride (Cl)	Sulfate (SO <sub>4</sub> )	Nitrate (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-891d-L-13	Mr. Ludwick, NE. of Artesia; 1160 feet W. of Bloomfield Ave., 80 feet S. of Artesia Ave. Use: Irrigation and domestic. Casing: 12 inches. Perforated 118-132; 150-160; 167-171.	1032	58	*156	18	6/4/31	52.8	-----	25	202	21	38	0	65	16	35
C-893e-L-13	Test Hole, Carmenita; at NE. corner of Center St. and Marquardt Ave. Casing: None.	1061	66	6	737	2/12/31	238	1.02	87	1,028	297	144	0	32	22	525
C-894-L-13	D. E. Viera (formerly Clever Bros.), W. of Buena Park; 200 feet W. of Marquardt St., 400 feet N. of Artesia Ave., 20 feet E. of irrigation well. Use: Domestic. Casing: 11 inches.	1062	60	x98	859	3/24/32	47.9	0.10	41	217	28	38	0	42	12	48
C-895-L-14	J. E. S. Heath (formerly Leon Vandermalle), W. of Buena Park; 150 feet S. of Artesia Ave., 0.15 mile E. of Miller Road. Use: Domestic. Casing: 4 inches.	1072	57	x-----	800 (1)	3/24/32 3/30/32	44.0	0.10	35	217 227	13 20	41	0	43	14	41
C-897a-L-13	Albert Myers, E. of Artesia; 1,470 feet S. of Orange St., 1,170 feet N. of Orangethorpe Ave., 325 feet E. of Bloomfield Ave. Use: Irrigation and domestic. Casing: 12 inches. Gravel 150-153, 184-188, 267-277, 278-288.	1033A	50	*300	17	6/4/31	40.8	-----	41	220	16	43	Tr.	47	9	50
C-897b-L-13	A. D. Durrand, E. of Artesia; 75 feet W. of Carmenita Ave., 125 feet N. of Orangethorpe Ave. Use: Domestic. Casing: 4 inches.	1054A	45	x271	764	3/2/32	44.9	0.12	33	226	16	37	Tr.	45	14	38
C-897p-L-13	Test Hole, E. of Artesia; at NE. corner of Orangethorpe Ave. and Carmenita Ave. Casing: None.	1054K	47	17	743	2/15/32	33.10	0.45	61	389	11,081	3,991	0	908	1,343	5,564
C-899a-M-13	B. F. Draper, SE. of Artesia; 700 feet S. of Anaheim St. (La Palma Ave.), 240 feet E. of Bloomfield Ave. Use: Irrigation and domestic. Casing: 12 inches. Perforated 218-233; 268-305, 311-320.	1035	38	*325	25	6/4/31	45.1	-----	38	220	18	37	Tr.	44	11	43
C-901d-M-12	Montana Land Co., Well 1, NE. of Signal Hill; 0.25 mile N. of Montana ranch office building, 1,500 feet E. of Somerset Ave., on N. side of road, 1.0 mile N. of Bixby Station Road. Use: Irrigation. Casing: 12 inches.	985	51	-----	71	6/18/31	40.1	-----	26	229	9	16	Tr.	49	12	28
C-901k-M-12	Test Hole, W. of Artesia; on S. line of Orangethorpe Ave., 200 feet E. of San Gabriel River. Casing: None.	994A	52	14	747	2/15/32	122	0.33	24	708	46	78	0	141	44	76
C-902j-M-11	Standard Oil Co., Hynes Well 1, S. of Clearwater; 250 feet W. of Downey Ave., 1,900 feet S. of South St. Use: Boiler feed and domestic. Casing: 15 inches. Perforated 319-323; 625-630.	944	48	*648	74	6/18/31	36.6	-----	46	201	11	14	1	40	7	51
C-902k-M-11	Standard Oil Co., Hynes Well 2, S. of Clearwater; 100 feet W. of Downey Ave., 1,985 feet S. of South St. Use: Boiler feed and domestic. Casing: 12 1/4 inches.	944A	48	*1,371	75	6/18/31	39.5	-----	31	226	13	9	1	50	10	55
C-902m-M-11	Test Hole, S. of Clearwater; 0.1 mile E. of Downey Ave., on S. line of South St. Casing: None.	953C	53	17	746	2/15/32	55.6	0.17	36	277	23	41	0	58	14	51
C-905a-M-11	City of Signal Hill, Well 1, N. of Signal Hill; 30 feet W. of Century Ave., 300 feet S. of Warflow Road. Use: Municipal. Casing: 24 inches.	928	76	555	(*)	5/18/31	-----	-----	-----	215	26	6Tr.	-----	-----	-----	-----
C-905c-M-11	City of Signal Hill, Well 3, N. of Signal Hill; 15 feet N. of 33rd St. Casing: 24 inches.	925B	72	500	(*)	5/18/31	-----	-----	-----	193	26	6Tr.	-----	-----	-----	-----
C-907h-M-12	Montana Land Co., Well 73, NE. of Signal Hill; 100 feet S. of Bixby Station Road at bend in road, 0.43 mile W. of Somerset Ave. Use: Irrigation. Casing: 4 inches. Perforated 256-270.	966	41	*270	69	6/18/31	35.1	-----	48	183	13	16	Tr.	33	8	49
C-908c-M-12	Montana Land Co., Well 20, NE. of Signal Hill; 50 feet W. of road passing Llewellyn School, 0.5 mile W. of Somerset Ave., 2,000 feet N. of Bixby Station Road. Use: Irrigation. Casing: 12 inches. Gravel 601-622, 599-716.	986A	46	*1,027	70	6/18/31	38.2	-----	30	207	9	16	0	45	10	30
C-908i-M-12	City of Long Beach, Commission Well 1, NE. of Signal Hill; 305 feet S. of Carson St. (Bixby Station Road), 1,233 feet W. of Palo Verde Ave. Use: Municipal. Casing: 20 inches. Perforated 1361-1378; 1402-1410; 1430-1478; 1560-1655. Samples on 7/31/31, 8/24/31, 9/10/31, and 10/28/31, are from depths of 246, 970, 1,120, and 1,600 feet, respectively, while drilling. Sample on 1/4/32 was during pumping test. Later samples are from operating well.	986C	45	*1,668	(1)	7/31/31 8/24/31 9/10/31 10/28/31	-----	-----	51 32 44 94	170 212 162 202	27 12 9 46	20 12 14 0	-----	31 48 29 5	5 5 Tr. 5	5 5 4 1
						1/4/32 7/5/32 8/3/32 11/1/32	-----	-----	93 33 83 37	200 214 223 199	48 12 38 12	Tr. 12 Tr. 14	-----	-----	-----	-----



TABLE 12. WELLS IN LOWER SAN GABRIEL RIVER AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 at 25°C)	Boron ppm	Percent sodium (Ca + Mg + Na)	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-909j-M-12	City of Long Beach, Commission Well 2, NE. of Signal Hill; 79 feet E. of Palo Verde Ave., 272 feet S. of Carson St. (Bixby Station Road). Use: Municipal. Casing: 26 inches. Perforated 300-316; 364-394; 618-625. Samples on 8/10/31, 8/17/31, and 8/25/31 are from depths of 384, 626, and 850 feet, respectively, while drilling. Later samples are from operating well.	996	37	1,054	(i)	8/10/31	---	---	34	149	13	16	---	51	5	31
					(j)	8/17/31	---	---	31	204	13	18	---	44	5	36
					(k)	8/25/31	---	---	40	203	11	14	---	37	5	37
					(l)	7/ 5/32	---	---	32	209	10	14	---	45	6	30
					(m)	8/ 3/32	---	---	46	215	10	15	---	50	6	26
					(n)	9/13/32	---	---	32	200	11	17	---	43	5	29
					(o)	10/ 1/32	---	---	31	205	11	16	---	46	6	28
					(p)	11/ 1/32	---	---	30	210	11	16	---	47	6	25
C-909b-N-13	J. P. Labourdette, S. of Artesia; 0.27 mile W. of Los Alamitos Blvd., 30 feet S. of Spring St., 50 feet W. of Los Angeles County Line at Spring St. Use: Domestic.	1029	22	x332	(b)	4/10/31	---	---	---	203	14	---	---	---	---	---
					(c)	6/19/31	---	---	---	222	14	---	---	---	---	---
					(d)	7/28/31	---	---	---	201	14	---	---	---	---	---
C-913b-O-12	Bixby Ranch, E. of Long Beach; 10 feet S. of 7th St. on E. side of Palo Verde St., extended, 0.85 mile E. of Hathaway Ave. Use: Irrigation. Casing: 14 inches.	492	24	x1020	(f)	11/26/30	---	---	---	322	17	---	---	---	---	---
					(g)	6/23/31	---	---	---	323	18	---	---	---	---	---
					529	11/11/31	41.6	---	---	198	16	---	---	---	---	---
C-913p-N-12	Test Hole, E. of Long Beach; 500 feet N. of Anaheim St., 5 feet W. of Palo Verde Ave. Casing: None.	492C	65	10	772	3/ 3/32	440	1.44	69	604	967	473	0	202	52	736
C-914b-N-12	Bryant Ranch, E. of Long Beach; 0.45 mile N. of Anaheim St., 5,000 feet W. of Palo Verde Ave., back of ranch house. Use: Domestic. Casing: 12 inches.	471	36	x1,500	547	3 25 32	32.2	0.12	83	162	16	12	0	8	3	68
C-916e-N-11	City of Long Beach, Citizens Well 4, NE. of Signal Hill; 40 feet S. of Spring St., 1,680 feet E. of Newport Ave. Use: Municipal. Casing: 12 inches. Perforated 800-860.	958B	29	1,155	(p)	10/19/21	---	---	89	207	17	2	Tr.	6	2	82
C-916b-N-11	Test Hole, E. of Signal Hill; 100 feet E. of Cerritos Ave., 0.5 mile S. of Spring St. Casing: None.	959E	25	15	773	3/ 7/32	223	0.77	90	1,165	144	128	0	24	15	535
C-916i-N-12	Test Hole, NE. of Signal Hill; NW. corner of Spring St. and Somerset Ave. Casing: None.	978	24	11	769	3/ 2/32	51.3	0.17	45	235	41	30	0	40	12	57
C-926a-M-11	Montana Land Co., Well 19, N. of Signal Hill; 0.26 mile E. of Cherry Ave., 0.35 mile N. of Bixby Station Road, 50 feet S. of private road to Cerritos Gun Club. Use: Irrigation. Casing: 12 inches. Perforated 778-790; 852-874.	936E	68	*981	1151	7/ 7/32	37.7	0.19	84	195	27	0	0	10	2	78
C-929f-M-10	Test Hole, N. of Long Beach; SW. corner of South St. and Dairy Ave., 0.4 mile W. of Atlantic Blvd. Casing: None.	903	50	15	745	2/15/32	62.6	0.17	38	234	25	63	0	63	16	63
C-930e-L-11	Curson Estate, N. of Long Beach; 75 feet S. of Artesia St., 300 feet W. of Atlantic Blvd. Use: Domestic and irrigation.	912	57	350	856	3/25/32	54.8	0.14	36	223	25	69	0	59	11	49
C-932a-L-11	City of Long Beach, North Long Beach Well 1, N. of Long Beach; 185 feet E. of Orange Ave., 2,400 feet S. of Artesia Ave., S. of Tonpy St. Use: Municipal. Casing: 16 inches. Perforated 314-324; 372-413; 790-820; 852-870; 966-980.	923	55	x1,000	83	6/19/31	47.3	---	47	192	30	42	0	39	9	55
					(i)	7/ 5/32	---	---	53	184	28	30	---	35	4	54
					(j)	8/ 3/32	---	---	52	181	27	35	---	35	5	53
					(k)	9/13/32	---	---	51	186	28	41	---	39	5	56
					(l)	10/ 1/32	---	---	53	160	27	35	---	34	4	54
					(m)	11/ 1/32	---	---	54	179	26	35	---	34	4	51
C-934b-M-10	City of Long Beach, North Long Beach Well 3, N. of Long Beach; 95 feet N. of Market St., 90 feet W. of Dairy Ave. Use: Municipal. Casing: 16 inches. Perforated 355-439.	904	48	x467	85	6/19/31	46.8	---	63	171	23	59	Tr.	28	6	74
					(i)	7/ 5/32	---	---	63	169	24	57	---	29	3	63
					(j)	8/ 3/32	---	---	65	166	26	59	---	29	3	70
					(k)	9/13/32	---	---	61	184	25	58	---	35	2	68
					(l)	10/ 1/32	---	---	65	165	25	57	---	28	2	69
					(m)	11/ 1/32	---	---	66	163	25	58	---	28	2	69
C-936e-M-11	City of Long Beach, Development Well 3, N. of Signal Hill; 710 feet S. of Wardlow St., 1,395 feet E. of Cherry Ave. In Municipal Airport. Use: Municipal. Casing: 26 inches. Perforated 153-190; 286-300; 315-330; 390-602.	935B	51	*752	95	6/19/31	33.3	---	55	171	7	15	1	28	4	45
					(i)	7/ 5/32	---	---	55	168	16	7	---	27	2	42
					(j)	8/ 3/32	---	---	54	170	14	13	---	27	3	43
					(k)	9/13/32	---	---	51	168	13	1	---	27	2	37
					(l)	10/ 1/32	---	---	58	161	14	14	---	27	1	44
					(m)	11/ 1/32	---	---	55	170	13	14	---	27	2	43
C-936f-M-11	City of Long Beach, Development Well 6, N. of Signal Hill; 90 feet S. of Wardlow St., 166 feet E. of Walnut Ave. Use: Municipal. Casing: 26 inches. Perforated 287-305; 540-615.	928G	66	*x915	97	6/19/31	34	---	69	168	14	4	1	20	3	62
					(i)	7/ 5/32	---	---	86	194	27	1	---	10	1	79
					(j)	8/ 3/32	---	---	86	199	25	1	---	10	1	79
					(k)	9/13/32	---	---	86	197	24	Tr.	---	10	1	77
					(l)	10/ 1/32	---	---	86	200	24	1	---	10	1	78
					(m)	11/ 1/32	---	---	86	188	25	1	---	9	1	75



TABLE 12. WELLS IN LOWER SAN GABRIEL RIVER AREA--Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>-6</sup> ) at 25 °C)	Baron Bpm	Per cent Sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate (HCO <sub>3</sub> )	Chloride (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-4336c-M-11	City of Long Beach, Development Well 7. N. of Signal Hill; 90 feet S. of Wardlow St., 235 feet W. of Cherry Ave. Use: Municipal. Casing: 26 inches. Perforated 395-570.	933C	59	*x650	98 ( ) 7/ 5/32 ( ) 8/ 3/32 ( ) 9/13/32 ( ) 10/1/32 ( ) 11/ 1/32 ( )	6/19/31 ( ) 7/ 5/32 ( ) 8/ 3/32 ( ) 9/13/32 ( ) 10/1/32 ( ) 11/ 1/32 ( )	37.1		86	195	21	3	0	10	1	83
C-4336i-N-11	City of Long Beach, Development Well 1. N. of Signal Hill; 940 feet S. of Wardlow St., 905 feet E. of Cherry Ave. in Municipal Airport. Use: Not used (formerly municipal). Casing: 12 inches. Gravel 295-359; 577-597; 599-1017	938	50	*1,017	( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	10/19/21 ( ) 9/ 8/25 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )		77	151	17	6	Tr.	Tr.	12	2	59
C-4336k-M-11	City of Long Beach, Development Well 4. N. of Signal Hill; 80 feet S. of Wardlow St., 2560 feet E. of Cherry Ave. in Municipal Airport. Use: Municipal. Casing: 26 inches. Perforated 345-357, 420-500; 707-720.	943	46	*1,016	( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	7/ 5/32 ( ) 10/1/32 ( ) 11/1/32 ( ) ( ) ( ) ( ) ( ) ( )		83	159	30	Tr.	Tr.	Tr.	11	1	66
C-4336l-N-11	City of Long Beach, Development Well 5. N. of Signal Hill; 1,267 feet S. of Wardlow St., 2,560 feet E. of Cherry Ave. in Municipal Airport. Use: Municipal. Casing: 26 inches. Perforated 400-590; 692-740; 942-972.	945A	47	*1,004	96 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	6/19/31 ( ) 8/ 3/32 ( ) 9/13/32 ( ) ( ) ( ) ( ) ( ) ( )	33.1		81	165	21	1	Tr.	10	3	72
C-4336m-M-11	City of Long Beach, Development Well 8. N. of Signal Hill; 90 feet S. of Wardlow St., 407 feet E. of Cherry Ave. Use: Municipal. Casing: 26 inches. Perforated 375-550.	935E	49	*x662	( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	7/ 5/32 ( ) 8/ 3/32 ( ) 10/1/32 ( ) 11/ 1/32 ( ) ( ) ( ) ( )		88	179	28	2	Tr.	Tr.	8	1	76
C-4337a-N-11	City of Long Beach, Citizens Well 1. NE. of Signal Hill; 425 feet S. of Spring St., 320 feet E. of Newport Ave. Use: Municipal. Casing: 12 inches.	959	33	*x420	( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	6/19/21 ( ) 8/ 10/31 ( ) 9/13/32 ( ) 10/1/32 ( ) 11/ 1/32 ( ) ( )		52	164	12	13	1	Tr.	22	3	47
C-4337c-N-11	City of Long Beach, Citizens Well 5. NE. of Signal Hill; 1,050 feet S. of Spring St., 370 feet E. of Newport Ave. Use: Municipal. Casing: 26 inches. Perforated 208-224; 300-330; 340-350; 368-408; 420-610.	959A	38	*x672	88 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	6/19/31 ( ) 7/ 5/32 ( ) 8/ 3/32 ( ) 9/13/32 ( ) 10/1/32 ( ) 11/ 1/32 ( )	31.9		60	165	14	10	0	20	6	52
C-4337f-N-11	City of Long Beach, Citizens Well 6. NE. of Signal Hill; 520 feet S. of Spring St., 1,010 feet E. of Newport Ave. Use: Municipal. Casing: 26 inches. Perforated 407-514; 560-600; 755-765.	959B	33	*x1,422	( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	8/ 3/32 ( ) 9/13/32 ( ) 10/1/32 ( ) 11/ 1/32 ( ) ( ) ( ) ( )		80	147	27	3	Tr.	Tr.	11	1	60
C-4337e-N-11	City of Long Beach, Citizens Well 7. NE. of Signal Hill; 40 feet S. of Spring St., 80 feet E. of Newport Ave. Use: Municipal. Casing: 26 inches. Perforated 725-776; 874-885; 912-934; 952-962.	945C	36	*1,105	89 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	6/19/31 ( ) 7/ 5/32 ( ) 8/ 3/32 ( ) 9/13/32 ( ) 10/1/32 ( ) 11/ 1/32 ( )	39.0		88	220	20	2	0	7	2	91
C-4338b-N-11	City of Long Beach, Alamitos Well 2. E. of Signal Hill; 1,265 feet E. of Cerritos Ave., 53 feet N. of Stearns St. in reservoir 20 feet W. of Alamitos Well 1. Use: Municipal. Casing: 12 inches. Gravel 137-190.	460L	23	*x273	( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	10/19/21 ( ) 6/19/31 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )		77	158	12	22	1	13	2	60	
C-4338d-N-11	City of Long Beach, Alamitos Well 6. E. of Signal Hill; 1,940 feet E. of Cerritos Ave., 600 feet N. of Stearns St. Use: Municipal. Casing: 12 inches. Gravel 350-420, 460-480, 553-610, 825-850; 860-937.	460G	22	*940	91 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	6/19/31 ( ) 7/ 5/32 ( ) 8/ 3/32 ( ) 9/13/32 ( ) 10/1/32 ( ) 11/ 1/32 ( )	36.9		84	195	14	11	1	8	4	85
C-4338f-N-11	City of Long Beach, Alamitos Well 8. E. of Signal Hill; 1,345 feet E. of Cerritos Ave., 695 feet N. of Stearns St. Use: Municipal. Casing: 26 inches. Perforated 804-915.	460C	24	*x952	92 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	6/19/31 ( ) 7/ 5/32 ( ) 8/ 3/32 ( ) 9/13/32 ( ) 10/1/32 ( ) 11/ 1/32 ( )	39.7		89	225	16	5	Tr.	6	2	88
C-4338e-N-11	City of Long Beach, Alamitos Well 9. E. of Signal Hill; 1,350 feet E. of Cerritos Ave., 1,230 feet N. of Stearns St. Use: Municipal. Casing: 26 inches. Perforated 768-774; 804-936; 1056-1145.	460A	23	*x1,184	93 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	6/19/31 ( ) 7/ 5/32 ( ) 8/ 3/32 ( ) 9/13/32 ( ) 10/1/32 ( ) 11/ 1/32 ( )	40.3		87	226	16	4	Tr.	7	3	96
C-4338a-N-11	City of Long Beach, Alamitos Well 11. E. of Signal Hill; 1,640 feet E. of Cerritos Ave., 537 feet N. of Stearns St. Use: Municipal. Casing: 26 inches. Perforated 170-190; 444-468; 480-494.	460F	23	*x500	94 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	6/19/31 ( ) 7/ 5/32 ( ) 8/ 3/32 ( ) 9/13/32 ( ) 10/1/32 ( ) 11/ 1/32 ( )	33.6		82	165	16	9	Tr.	10	2	70



TABLE 12. WELLS IN LOWER SAN GABRIEL RIVER ARLA Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>-3</sup> at 25 °C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)									
										Bicarbonate (HCO <sub>3</sub> )	Chloride (Cl)	Sulfate (SO <sub>4</sub> )	Nitrate (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)			
C-038j-N-11	City of Long Beach, Alamitos Well 12. E. of Signal Hill; 1,500 feet E. of Carreras Ave., 900 feet N. of Stearns St. Use: Municipal. Casing: 26 inches. Perforated 162-180; 197-204; 324-330.	400E	23	*500	(j)	7/ 5/32 (j) 8/ 3/32 (j) 9/13/32 (j) 11/ 1/32					156 141 151 177	24 18 23 6	5 20 9 6				10 10 9 7	1 1 1 1	84 63 46 73
C-940e-N-12	City of Long Beach, Wise Ranch Well 1. NE. of Long Beach; 80 feet S. of Spring St., 711 feet E. of Studebaker Road. Use: Municipal. Casing: 26 inches. Perforated 330-410; 588-600; 632-651; 874-938; 953-980. Samples on 4/17/31 and 5/18/31 are from depths of 428, 618, and 980 feet, respectively, while drilling. Later samples are from operating well.	1009D	22	*1,086	(j)	4/17/31 (j) 5/18/31 (j) 5/18/31 (j) 7/ 5/32 (j) 8/ 3/32 (j) 9/13/32 (j) 10/ 1/32 (j) 11/ 1/32					240 165 162 215 186 191 194 191	18 14 11 11 16 15 14 16	43 3 14 3 29 29 30 30				52 25 29 41 29 34 37 34	7 2 2 4 3 4 4 4	51 54 39 43 43 44 37 51
C-940f-N-12	Test Hole. NE. of Long Beach; 100 feet N. of Spring St., 300 feet W. of west levee of San Gabriel River. Casing: None.	1009E	24	11	771	3/ 2/32	236	0.41	94		572	293	347	0	11	10			507
C-940m-N-12	City of Long Beach, Wise Ranch Well 2. NE. of Long Beach; 1,120 feet S. of Spring St., 710 feet E. of Studebaker Road. Use: Municipal. Casing: 26 inches. Perforated 320-344; 380-400; 570-595; 800-910; 930-952.	1009F	21	*1,041	(j)	7/ 5/32 (j) 8/ 3/32 (j) 9/13/32 (j) 10/ 1/32 (j) 11/ 1/32					152 106 170 192 204	14 13 15 14 15	23 24 29 30 26				32 40 22 33 43	4 4 3 3 4	33 40 37 52 41
C-941d-K-13	Mr. Young. Santa Fe Springs; 150 feet SW. of Los Nietos Road, 60 feet SE. of Painter Ave., extended. Use: Irrigation. Gravel 40-48; 90-104.	1645G	160	*111	233	8/13/31	45.3		31		223	14	38	1	43	16			36
C-941k-J-13	Murphy Ranch. S. of Whittier, 581 feet NW. of Painter Ave., 551 feet SW. of Mulberry Drive, extended. Use: Irrigation. Casing: 8 inches. L.A. C. F. C. D. and D. W. R. analyses on 11-9-31 are from same sample.	1654D	146		(j)	6-29-31 (j) 11-9-31 (j) 11-9-31 (j) 4-27-32	327				302 283 305 288	316 256 305 327							
C-941n-J-13	W. H. Slabs. S. of Whittier; 45 feet S. of Mulberry Ave., 0.15 mile W. of Painter Ave. Use: Irrigation. Casing: 12 inches.	1654F	148	x62	1679	1/ 6/33	342	0.33			244	178							
C-942e-K-13	J. J. Rehai. E. of Norwalk; 1,400 feet W. of Valley View Ave., 100 feet N. of road 0.5 mile S. of Imperial Highway. Use: Irrigation. Casing: 12 inches. Perforated 934-988.	1668B	105	*1,030	232	8/13/31	119.7		54		375	84	210	Tr.	53	41			162
C-944f-K-15	L. Good, Well 1. La Habra; 250 feet W. of La Mirada Ave., 0.10 mile N. of Ocean Ave. Use: Domestic. Casing: 7 inches. Open bottom casing.	1737A	244	x150	1771	2/12/33	167	0.14			122	209							
C-944g-K-15	L. Good, Well 2. La Habra; 450 feet S. of P. E. Ry., 115 feet W. of La Mirada Ave. Use: Domestic and irrigation. Perforated 585-605.	1737B	268	*x622	1772	2/12/33	96.7	0.22			369	59							
C-947e-L-14	Charles L. McComber, Plant 2. N. of Buena Park; 1,700 feet NE. of La Mirada Road along A. T. & S. F. Ry., 1,700 feet NW. of La Habra Road, 800 feet E. of unnamed road. Use: Irrigation. Casing: 12 inches. Perforated 695-716.	1101A	120	*740	(k)	12/ 4/25					99	41	88		30	Tr.			
C-948m-L-14	Standard Oil Co., Northam Well 4. NW. of Buena Park; 1,560 feet S. of Center St., 595 feet E. of N. and S. center line of Sec. 27, T. 3 S., R. 11W., S. B. & M., 85 feet W. of boiler house. Use: Boiler feed and domestic. Casing: 12 inches.	1081A	65	x1,023	37	6/ 5/31	48.9		79		195	21	57	0	16	4			97
C-948p-L-14	Charles L. McComber, Plant 4. NW. of Buena Park; 60 feet SW. of A. T. & S. F. Ry., 200 feet S. of La Mirada Road, 110 feet E. of Harbor Road, extended. Use: Irrigation. Casing: 11 inches. Perforated 147-163; 196-202; 205-226; 253-267.	1081D	110	275	38	6/ 5/31	58.9		48		238	27	75		40	16			69
C-968b-K-15	Union Oil Co., Well 6. NE. of La Habra; 300 feet E. of Fullerton Road, 1,875 feet N. of Whittier Ave. (State Highway). Use: Irrigation. Casing: 16 inches. Perforated 300-750.	1765	471	*x756	(m)	Nov. 1927 (m) Apr. 1931 (m) June 1931 (j) 6/16/31			54 39 41 23		336 317 252 259	115 127 135 122	311 386 301 290		58 105 81 71			51 62 52 137	
C-969f-K-16	Union Oil Co., Well 9. NW. of Brea; 0.75 mile N. of Central Ave., 1,200 feet W. of Berry St. Use: Irrigation. Casing: 16 inches. Perforated 360-750.	1785	561	*x760	(m)	8/19/28 (m) 7/30/31 (j) 7/31/31		0.19 0.16	14 27		322 340 332	77 82 76	334 350 350		132 164 123	55 63 62		57 49 48	
C-969g-K-16	Union Oil Co., Well 14. NW. of Brea; 475 feet S. of Central Ave., 190 feet W. of Puente St. Use: Irrigation. Casing: 16 inches.	1786A	374	*1,709	(j)	5/ 9/31 (j) 5/14/31	163	0.24	42		220 358	162 173	423 173	13	85 136	59 65		186 207	



TABLE 12. WELLS IN LOWER SAN GABRIEL RIVER AREA—Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25 C.)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radiate (HCO <sub>3</sub> )	Chloride radiate (Cl)	Sulfate radiate (SO <sub>4</sub> )	Nitrate radiate (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-909h-K-16	Union Oil Co., Well 5, W. of Brea; 320 feet S. of Ocean Ave., 800 feet E. of Puente St. Use: Irrigation. Casing: 16 inches. Perforated 1260-1740.	1787A	338	*x1,790	(m)	Nov. 1927 Apr. 1931 June 1931 ( ) 6/20/31 (m) July 1931	----- ----- ----- 163 -----	----- ----- 0.38 0.27 -----	71 60 41 43 57	433 447 374 378 416	177 162 147 380 372 150 341	192 306 380 372 372 133 131	----- ----- ----- 2 -----	51 81 113 108 51	24 40 61 39 49	260 251 171 177 245
C-970m-K-15	D. J. Bastanchury, Well 1 (formerly Union-San Juan Well 1), S. of La Habra; 1,200 feet S. of Cedar Ave., 200 feet E. of Idaho St. Use: Irrigation. Casing: 18½ inches. Gravel 100-150; 380-622. Converted oil well.	1748B	300	*x4,695	(v)	6/9/31 ( ) 7/31/31	----- 99	0.33 0.33	57 44	348 369	107 84	133 131	2	63 79	22 28	150 112
C-970p-K-15	D. J. Bastanchury, Well 2, S. of La Habra; 1,200 feet S. of Cedar Ave., 250 feet E. of Idaho St., 50 feet E. of C-970m-K-15. Use: Irrigation. Casing: 10 inches.	1748C	300	x618	( )	7/31/31	107	0.45	59	375	101	131	Tr.	56	22	160
C-972i-K-16	D. J. Bastanchury, Hill Forty, Wall 2, W. of Brea; 1,750 feet S. of Ocean Ave. (Deodora St.), 100 feet W. of Puente St. Use: Irrigation. Casing: 24 inches. Perforated 530-1380, plugged at 1,440 feet. Converted oil well.	1788A	352	*x5,685	(v)	6/9/31 ( ) 6/23/31	----- 143	0.37 0.25	34 39	305 332	135 135	314 300	5	119 100	51 54	120 141
C-972h-K-16	Union Oil Co., Well 16, W. of Brea; 100 feet S. of Cedar Ave., 2,000 feet W. of Berry St. Use: Irrigation. Casing: 16 inches. Perforated 900-1440, sandbed up to 1,232. This analysis (6/10/31) is of the water pumped from the well with the top water entering through a hole in the casing at 121 feet and which is shown by separate analysis (6/23/31). This top water drops into the hole to meet the lower level at about 150 feet.	1788C	330	*x1,485	( )	6/9/31 (v) 6/10/31 (v) 6/23/31 (m) July 1931 (m) July 1931 ( ) 7/31/31	142 ----- ----- ----- 146	0.42 0.60 ----- ----- 0.55	53 56 21 56 37 61	384 401 329 343 346 439	128 138 192 138 192 128	245 253 173 173 254 266	2 ----- ----- 0	75 71 146 71 100 70	40 30 33 39 38 35	184 167 165 197 128 229

\* Log in files of Division of Water Resources.

x Water levels in files of Division of Water Resources.

y Total equivalent quantity of carbonate (CO<sub>3</sub>).b Sulphate (SO<sub>4</sub>) determined by turbidity method.

c Alkaline bases estimated by difference between sum of acid radiates and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.

d Analysis by Carl I. Wilkinson, formerly Wilkinson and Burke, Los Angeles.

e Analysis by California State Department of Public Health, Bureau of Sanitary Engineering.

f Analysis by Los Angeles County Flood Control District, Los Angeles.

g Analysis by Los Angeles Testing Laboratory, Los Angeles.

h Analysis by Orange County Flood Control District, Santa Ana, California.

i Analysis by Smith-Emery Company, Los Angeles.

j Analysis by City of Long Beach, Engineering Laboratory.

k Analysis by Association Laboratory, Anaheim, California.

l Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.

m Analysis by Union Oil Co. of California.

n Information from H. M. Rogers, I. Horton, California.

o Analysis by University of California, Graduate School of Tropical Agriculture and Citrus Experiment Station, Riverside, California.

p Analysis by United States Geological Survey.



TABLE 13. SURFACE WATERS IN LOWER SAN GABRIEL RIVER AREA

Number	Location and description	Location number	Elevation of ground	Discharge in second-foot	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>-3</sup> at 25° C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
S502-O-12	San Gabriel River, E. of Long Beach, Sampled at Ocean Ave. bridge. Small flow.	S502	5	-----	767	3/ 2/32	300	1.80	72	335	586	288	0	81	52	497
S959-N-11	Open drain, E. of Signal Hill. Sampled at E. side of Cerritos Ave., 0.4 mile S. of Spring St. Discharge estimated.	S959	25	1. ±	242	8/20/31	37.8	-----	60	195	20	2	Tr.	18	5	68
S1002-L-13	Coyote Creek, E. fork W. of Buena Park. Sampled at Artesia St., 0.23 mile W. of Valley View Ave. Discharge from L. A. C. F. C. D. gaging station 41, below P. E. Ry. bridge near Artesia St.	S1002	50	0.15	858	3/24/32	92.1	0.44	50	329	94	64	10	65	19	111
S-1054-M-13	Coyote Creek, E. of Artesia. Sampled at Orangeflour Ave. bridge, 0.18 mile E. of Carmentia Ave. U. S. D. A. and D. W. R. analyses on 3/2/32 are from same sample. Discharge estimated 1/31/33. Small flow on other dates.	S1054	40	-----	744 765 (c) 1737	2/15/32 3/ 2/32 3/ 2/32 1/31/33	281 294 287 59.2	2.24 2.43 ----- 0.30	----- 73 75	345 357 3363 159	674 744 737 45	----- 82 83	----- 23 20	----- 79 83	----- 50 59	487 494
S1028-N-13	Coyote Creek, W. of Los Alamitos. Sampled at Spring St. bridge, 0.20 mile W. of Los Alamitos Blvd. Small flow.	S1028	20	-----	766	3/ 2/32	370	2.34	-----	479	843	-----	-----	-----	-----	-----
S1001-L-13	Open drain, Along N. road gutter NW. of Buena Park. Sampled at NE. corner of Marquardt Ave. and Center St. Small flow.	S1001	66	-----	738	2/12/32	95.9	0.34	-----	223	106	-----	-----	-----	-----	-----
S1636-K-13	George F. Getty Co. SE. of Santa Fe Springs. Oil well waste water from sump hole at intersection of Lakeland Road and A. T. & S. F. Ry. main line. Waste water from Santa Fe Springs oil fields.	S1636	155	-----	1345	9/ 5/32	942	9.40	94	369	2,929	32	0	55	26	1,897

<sup>a</sup> Includes small equivalent quantity of Carbonate (CO<sub>3</sub>).<sup>b</sup> Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.<sup>c</sup> Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.







TABLE 14. WELLS IN REDONDO-LONG BEACH AREA—Continued

[illegible]



TABLE 14. WELLS IN REDONDO-LONG BEACH AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 (Ca + Mg + Na)	(Constituents (parts per million))						
										Bicarbonate radiolite (HCO <sub>3</sub> )	Chloride radiolite (Cl)	Sulfate radiolite (SO <sub>4</sub> )	Nitrate radiolite (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
B-38h-J-7	City of Inglewood, Well 15, Inglewood; 193 feet NW. of A. T. & S. F. Ry., 605 feet NE. of Centinela Ave. Use: Municipal. Casing: 18 inches. Perforated 130-145, 152-165.	1352H	139	*382	(a)	7/16/31				234	52	180				
B-41-K-7	City of Hawthorne, Well 1, Hawthorne; 265 feet W. of Ramona Ave., 675 feet N. of El Segundo Blvd. Use: Municipal. Casing: 12 inches. Perforated 320-364, 405-412.	1348	90	*x569	(a)	7/16/31				293	32	15				
B-41a-K-7	City of Hawthorne, Well 2, Hawthorne; 75 feet W. of Ramona St., 665 feet N. of El Segundo Blvd. Use: Municipal. Casing: 14 inches. Perforated 321-360; 400-403; 454-469; 622-634.	1348A	95	*x679	(a)	7/16/31 102	56.4		47	327 320	31 28	25 6	0	37	17	67
B-44-K-8	C. A. Van Nest, Hawthorne; 35 feet S. of June St., 300 feet W. of Walnut Ave. Use: Domestic. Casing: 6 inches.	1366	81	x160	1298	8/29/32	76.1	0.08		*222	98					
B-48a-K-8	O. T. Johnson Rancho, Well 3, NE. of Hawthorne; 50 feet S. of Imperial Highway, 400 feet E. of Arlington Ave. Use: Irrigation. Casing: 12 inches. Perforated 233-248; 320-344.	1386A	125	*407	208	8/ 6/31	56.3		35	253	11	31	0	49	18	47
B-54-K-8	American States Water Service Co. (formerly Gardena Valley Water Co.), Ballona Plant, W. of Athens; 150 feet S. of El Segundo Blvd., 222 feet W. of Buellong Ave. Use: Municipal. Casing: 16 inches. Perforated 273-277; 285-320; 447-500; 525-543.	1408	135	*x564	(b)	12/ 6/30			29		32	47		61	15	40
B-54c-K-8	American States Water Service Co., Well 3, SE. of Athens; 6 feet S. of 135th St., 400 feet W. of Vermont Ave. Use: Municipal. Casing: 16 inches. Perforated 240-380; 408-412; 444-450; 500-518; 556-582.	1409A	83	*x582	(b) 185	12/ 6/30 8/ 6/31	56.8		34 31	223	31 27	82 78	0	66 58	14 16	52 43
B-54g-L-9	Mrs. B. Leitch, Well 1, N. of Gardena; 200 feet N. of Rosecrans Ave., 115 feet E. of Hoover St., extended. Use: Domestic. Casing: 8 inches. L. A. C. F. C. D. and D. W. R. analyses on 11/14/31 are from same sample.	1419	92	x160	(d) (d) 524 1659	6/16/31 11/14/31 12/16/32				268 253 290	62 55 52					
B-84-L-6	City of Manhattan Beach, Well 1, Manhattan Beach; 15 feet W. of Sepulveda Blvd., 190 feet S. of 8th St. Use: Municipal. Casing: 16 inches. Perforated 221-240, 527-541.	701B	139	*x1,000	(d)	6/20/31				213	89					
B-84a-L-6	City of Manhattan Beach, Well 2, Manhattan Beach; 20 feet N. of 8th St., 250 feet W. of Sepulveda Blvd. Use: Municipal. Casing: 16 inches. Perforated 222-252; 284-293.	701	155	*339	(d) (a) 885	6/20/31 7/16/31 3/24/32				277 254 247	78 67 89	115 23	2	51	15	62
B-84b-L-6	City of Manhattan Beach, Well 3, Manhattan Beach; 75 feet W. of Sepulveda Blvd., 15 feet S. of 8th St. Use: Municipal. Casing: 14 inches. Perforated 214-218; 225-235. L. A. D. of W. & P. No. 8-A-2.	701A	150	*547	(f) (f) (f) (f) (f) (f) (f) (f) (f) (f)	11/13/29 12/ 9/29 3/28/30 5/ 9/30 6/ 9/30 9/10/30 10/22/30 2/13/31 3/ 9/31 4/ 6/31			47 35 45 39 38 47 39 63 55 43	236 258 *238 224 *218 359 223 *283 *224 236	80 120 76 81 78 82 76 80 105 103	24 32 30 27 24 43 29 30 26 23	53 96 53 55 57 62 68 43 62	10 7 16 15 12 11 6 8 9 13	e72 e67 e76 e59 e56 e80 e58 e109 e91 e71	
B-84c-L-6	City of Manhattan Beach, Well 4, Manhattan Beach; 255 feet S. of 8th St., 235 feet W. of Sepulveda Blvd. Use: Municipal. Casing: 16 inches. Perforated 239-248; 248-258.	701C	155	*617	(d) (a) 163	6/20/31 7/16/31 7/23/31				196 180 174	103 110 110	123 15	11	51	15	75
B-85-L-7	Herman Vetter, Hermosa Beach; 125 feet N. of 16th St., 400 feet W. of Camino Real, 300 feet E. of A. T. & S. F. Ry. Use: Domestic. Casing: 6 inches.	703	90	x260	406 886	10/ 6/31 3/24/32	69.7 57.5	0.09 0.14	36 40	268 253	76 53	33 16	0	61 48	21 14	61 55
B-85c-L-7	California Water Service Co., Plant 5, Well 6, Redondo Beach; 50 feet E. of Pier Ave. between Carnegie and Gould Avenues. Two wells in same pit. Use: Municipal. Casing: 12 inches. Perforated 190-742.	712	100	*x502	(a) 145	7/17/31 7/21/31	62.9		40	254 247	59 57	123 37	0	54	16	61
B-85d-L-7	California Water Service Co., Plant 6, Well 9, Redondo Beach; 60 feet W. of Pier Ave. between Carnegie and Gould Avenues, opposite Plant 5. Use: Municipal. Casing: 16 inches.	712A	105	273	(a) 146	7/17/31 7/21/31	64.9		39	258 253	61 60	125 35	0	56	16	62
B-85e-L-7	Walter Haviland, Redondo Beach; 80 feet W. of Pier Ave., 110 feet N. of Ormand Lane. Use: Not used. Casing: 12 inches. Samples are from 140, 190, 160 feet, and surface of water, respectively.	713	125	x192	(d) (d) (d)	11/ 9/31 11/ 9/31 4/21/32				166 225 103	85 64 71					







TABLE 14. WELLS IN REDONDO-LONG BEACH AREA—Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>-3</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
B-94-M-7	Bob Veda (Dr. Ellenwood lease). SE. of Redondo Beach; 1 mile W. of Hawthorne Ave., 500 feet S. of Redondo-Long Beach Road, 1,100 feet E. of SE. corner of Redondo Beach City Boundary. Use: Irrigation. Casing: 16 inches. Perforated 305-314, 330-335, 350-355, 377-390.	737	110	*x416	(d) 888 969	12/18/31 3/24/32 5/11/32	58.5 58.5 59.2	0.27 0.20	58 56	312 293 290	71 50 52	0 0 0	0 0 0	34 34	11 13	83 81
B-94c-M-7	C. H. Quandt, Well 2. SW. of Torrance; 85 feet E. of Ocean Ave., 615 feet S. of Redondo-Long Beach Blvd., 50 feet SE. of Well 1. Use: Irrigation and domestic. Casing: 14 inches. Perforated 244-275.	747A	80	*300	164 (d)	7/23/31 11/9/31	56.7		63	254 273	46 43	1	Tr.	24	12	88
B-95-N-7	Bob Veda (Dr. Ellenwood lease), Well 3. SE. of Redondo Beach; 60 feet N. of Redondo-Wilmington Blvd., 800 feet E. of bend in road, 0.85 mile W. of Hawthorne Ave. Use: Irrigation and domestic. Casing: 12 inches. Perforated 282-297; 340-360.	739	108	*x367	173 (d) 882 968	7/23/31 12/18/31 3/23/32 5/11/32	102.2 102 104	0.32 0.24	41 40	415 420 427 430	126 142 130 130	17 14 15	0 0 0	70 71 70	36 34 36	103 101 100
B-100b-N-8	Union Oil Co. SW. of Torrance; 100 feet S. of Lomita Blvd., 0.4 miles NW. of Pennsylvania Ave., inside tank farm. Use: Fire prevention and domestic. Casing: 14 inches. Gravel 188-197; 230-300.	769	77	*660	174	7/23/31	60.6		72	265	67	0	0	19	11	107
B-103-M-8	Columbia Steel Co., Well 2. Torrance; 500 feet S. of 208th St., 1,100 feet E. of Arlington Ave. Use: Industrial. Casing: 14 inches. Perforated 122-160; 293-306; 330-430.	785	65	*x653	1586	12/8/32	55.1	0.19	46	238	48	4	2	34	17	69
B-103a-M-8	Columbia Steel Co., Well 1. Torrance; 500 feet E. of Arlington Ave., 600 feet S. of 208th St. Use: Industrial and domestic. Casing: 14 inches. Perforated 293-304; 350-364; 380-388; 577-598.	785A	67	*613	169	7/23/31	51.6		47	244	39	6	1	22	17	69
B-103b-L-8	Southern California Edison Co., Ltd. Torrance; 250 feet W. of Western Ave., 300 feet N. of 190th St. (Dominguez St.). Use: Industrial. Casing: 12 inches. Perforated 470-483, 522-528.	794	57	*x550	165	7/23/31	44.6		45	241	27	3	Tr.	35	12	52
B-106-L-8	American States Water Service Co. (formerly Gardena Valley Water Co.), Well 2. Gardena; 50 feet S. of Amestoy Ave., 30 feet W. of Esther St., extended in wooden pump house. Use: Municipal. Casing: 16 inches. Gravel 190-220; 570-680.	800	53	*x680	(b) 166	12/6/30 7/23/31	55.7		32 34	229	35 25	47 63	0	50 58	15 15	45 48
B-106f-L-9	Gordon Ranch, NE. of Gardena; 60 feet W. of Harbor Blvd. (Main St.), 2,100 feet N. of Riverside-Redondo Blvd., under derrick in pump house. Use: Irrigation and domestic. L. A. D. of W. & P. No. 7-A-11.	820A	120	x299	(f) (f)	10/27/30 3/17/31			20 51	199 224	64 100	80 136		61 85	10 4	531 409
B-106p-L-9	J. W. Goode, Gardena; 75 feet S. of Olive St. (161st St.), 130 feet E. of Mendo Ave., 750 feet E. of Vermont Ave. Use: Irrigation.	811B	41	x40	1674	1/13/33	62.2	0.12	35	*265	41	51	2	58	18	54
B-107b-L-8	Roosevelt Memorial Park. S. of Gardena; 400 feet S. of 182d St., 400 feet W. of Normandie Ave. Use: Irrigation. Casing: 10 inches. Perforated 526-546; 594-604. L. A. C. F. C. D. and D. W. R. analyses on 11/14/31 are from same sample.	803	44	*679	(d) (d) 521	7/15/31 11/14/31 11/14/31				226 219 229	80 69 69					
B-107c-L-9	William C. Gibboney (lessee). SE. of Gardena; 0.23 mile S. of 182d St., 100 feet E. of Figueroa St. Use: Domestic. Casing: 8-foot dug shaft. L. A. C. F. C. D. and D. W. R. analyses on 11/14/31 are from same sample.	813	26	25	(d) (d) 522 1807	7/15/31 11/14/31 11/14/31 2/8/33	112 110	0.16		254 293 290 241	182 183 169					
B-107d-L-9	Ren Ayala, SE. of Gardena; 300 feet W. of Figueroa St., 300 feet N. of 182d St. Use: Irrigation.	812	28	42	(d) 876 974 1033 1134 1257 1346 1458 1523 1565 1651 1737	Dec. 1931 4/6/32 5/12/32 6/3/32 7/5/32 8/8/32 8/31/32 10/5/32 11/2/32 12/6/32 1/4/33 2/3/33	209 206 204 186 188 198 189 196 200 202 186	0.22 0.20 0.24	28 32	549 473 467 467 311 348 341 460 354 406 470 384 357	323 371 362 355 348 330 330 332 337 343 352	20 20 1 1 23 27	188 185 140 140 162 166	66 69 63 63 67 67	134 164 161 161 160 167	
B-108-M-8	F. S. Austin, E. of Torrance; 200 feet N. of East Road, 130 feet E. of Walnut St. Use: Not used. Casing: 7 inches.	805	35	x-----	(d)	6/23/31				141	46					



TABLE 14. WELLS IN REDONDO-LONG BEACH AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K <sub>Cl</sub> 10 at 25 °C)	Boron ppm	Per cent sodium (Na x 100) (Ca + Mg + Na)	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
B-108a-M-9	Dominguez Ranch, SE. of Gardena; 0.6 mile N. of East Road (29th St.), 1,200 feet E. of Main St. (Harbor Blvd.), 800 feet SW. of Nigger Slough. Use: Domestic and irrigation. Casing: 6 inches. L. A. C. F. C. D. and D. W. R. analyses on 11/14/31 are from same sample.	824	21	x60	(d) 239 523 (c) 851	7/15/31 8/1/31 11/14/31 11/14/31 3/31/32	53.2 54.9 53.8		32	224 216 225 217	27 27 23 23	66	0	55	16	41
B-108b-M-9	Ray O'Boyle, SE. of Gardena; 0.6 mile N. of East Road, 100 feet W. of Main St. (Harbor Blvd.). Use: Domestic. Casing: 5 inches.	814	21	70	(d) (c)	7/15/31 11/14/31				215 200	32 18					
B-109c-M-9	Dominguez Water Co. N. of Wilmington; 50 feet S. of Carson St., 0.45 mile E. of Harbor Blvd. Use: Not used. Casing: 12 inches. Open bottom casing and not perforated. Sampled at depths of 100, 500, and 1,000 feet, respectively.	826	29	*x1,701	401 402 403	10/6/31 10/6/31 10/6/31	76.3 72.6 71.9	0.57 0.54 0.53		454 448 442	34 30 30					
B-110-N-8	Bob Veda, SE. of Torrance; 0.25 mile S. of 228th St. (Ocean Ave.), 0.25 mile E. of Normandie St. Use: Irrigation. Casing: 12 inches. Perforated 245-258; 280-288; 338-344; 380-388; 460-470	808	56	*x563	(d) 512	6/16/31 11/12/31	40.4			209 223	20 23					
B-110a-N-9	Fred Fiesel, N. of Wilmington; 100 feet E. of Vermont Ave., 1,500 feet N. of Rocha St. Use: Domestic. Casing: 7 inches.	818	45	x220	(d) 528	6/16/31 11/12/31	43.1			222 223	25 27					
B-110b-N-9	Ted Kleinmeyer, N. of Wilmington; 195 feet W. of Main St. (Harbor Blvd.), 210 feet N. of Rocha St. Use: Domestic. Casing: 12 inches.	829	42	x120	871	4/11/32	40.0	0.14	55	217	25	2	Tr.	23	10	55
B-110c-N-9	Pan American Petroleum Co. N. of Wilmington; 200 feet N. of Rocha St., 200 feet E. of Harbor Blvd. Use: Industrial. Casing: 12 inches. Gravel 216-235. Pump removed in May, 1932	820A	43	*262	(d)	6/16/31				214	234					
B-110f-N-9	E. L. Forrester, N. of Wilmington; 0.4 mile N. of Rocha St., 50 feet W. of Main St. (Harbor Blvd.). Use: Domestic. Casing: 6 inches. L. A. C. F. C. D. and D. W. R. analyses on 11/12/31 are from same sample.	828	37	90	(d) (c) 520	7/15/31 11/12/31 11/12/31				209 211 217	135 126 130					
B-110g-N-9	Mrs. Addie V. Stewart, N. of Wilmington; 150 feet S. of Rocha St., 150 feet E. of Main St. (Harbor Blvd.). Use: Domestic and irrigation. Casing: 6 inches.	829C	41	100	(d) 525 870 962 1034 1135 1238 1347 1439 1524 1560 1653 1738 1832	7/15/31 11/14/31 4/11/32 5/1/32 7/3/32 8/3/32 8/3/32 10/5/32 11/2/32 12/6/32 2/4/33 2/3/33 6/33	141 146 146 147 148 147 148 147 148 145 145 145 145	0.13 0.12 0.11 0.10 0.13 0.12 0.14 0.13 0.10 0.12 0.16 0.14		256 253 265 265 271 262 263 262 265 272 278 271 268	305 311 325 320 323 316 316 316 312 312 312 314 309					
B-110h-M-9	Fiesel Bros. N. of Wilmington; 50 feet S. of Ocean Ave., 150 feet W. of Figueroa St. Use: Domestic.	818A	42	250	(d) 516	7/15/31 11/12/31	42.4			222 220	25 20					
B-111a-L-9	John Myers, E. of Gardena; 100 feet N. of Palm Ave., 600 feet E. of Los Angeles St. Use: Irrigation and domestic. Casing: 8 inches. Gravel 191-199.	831	61	*235	161	7/23/31	56.0		33	223	23	76	0	59	15	46
B-113a-M-9	Dominguez Water Co. Well 2. SE. of Gardena; in open field 1,300 feet E. of Avalon Blvd., 1 mile S. of Victoria St., 2,000 feet E. of Well 1. Use: Not used. Casing: 12 inches. Perforated: 633-671; 688-703. Sampled at surface of water, 650- and 700-foot depths, respectively	834A	13	*x750	(d) (c) (c)	11/18/31 11/18/31 11/18/31				278 299 179	46 27 27					
B-113b-M-9	Los Angeles County Flood Control District, Test Well 3. N. of Gardena; 200 feet E. of Avalon Blvd., 2,600 feet N. of Nigger Slough Channel. Use: Not used. Casing: 6 inches. Sampled at depths of 15, 25, 35, 45, 55, 65, 75, 85, 95 and 105 feet, respectively, as drilling progressed.	835	11	*105	(d) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c)	Apr., 1931 Apr., 1931 Apr., 1931 Apr., 1931 Apr., 1931 Apr., 1931 Apr., 1931 Apr., 1931 Apr., 1931 Apr., 1931 Apr., 1931				615 618 618 618 618 618 618 618 618 618 615	146 133 138 138 124 130 106 113 115 120					



TABLE 14. WELLS IN REDONDO-LONG BEACH AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 at 25°C)	Boron ppm	Per cent sodium Na + Mg + Na	Constituents (parts per million)						
										Bicarbonate (HCO <sub>3</sub> )	Chloride (Cl)	Sulfate (SO <sub>4</sub> )	Nitrate (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
B-114-M-9	Joe Lovia, SE. of Gardena; 0.34 mile N. of Carson St., 400 feet N. of 216th St., 100 feet E. of Grace Ave. Use: Domestic and irrigation. Casing: Dug well.	836	18	x36	(d) 526 573 975 1035 1136 1259 1348 1460 1525 1567 1652 1833	6/10/31 11/14/31 4/11/32 5/16/32 6/3/32 7/5/32 8/7/32 8/31/32 10/5/32 11/2/32 12/6/32 1/4/33 3/6/33	454 491 506 546 563 589 570 572 579 572 569 529	0.28 0.28 0.28 0.30 0.34 0.30 0.36 0.35 0.43 0.37 0.36	44 44 42 40 45 46 47	240 250 250 253 253 268 268 262 265 262 259	658 758 870 932 976 1,021 1,065 1,050 1,040 1,065 1,101 1,047 1,300	— — 1,356 1,382 — 1,596 1,702 — — 1,503 — 1,504 1,300	— — 0 0 — 0 0 — — 0 — 0 —	— — 331 327 — 408 435 — — 316 — 336 317	— — 180 181 — 223 243 — — 246 — 223 214	— — 580 574 — 638 637 — — 685 — 687 681
B-115-N-9	Ana-May Kreyssler, N. of Wilmington; 450 feet S. of Rocha St., 500 feet W. of Avalon Blvd. Use: Domestic. Casing: 12-10 inches. Perforated 454-554.	839	37	*x554	160	7/22/31	73.7	—	45	223	126	0	Tr.	53	17	76
B-115a-N-9	Southern California Edison Co., Ltd. NE. of Wilmington; 100 feet S. of Rocha St., 300 feet E. of Broad St. Use: Industrial. Casing: 12 inches. Perforated 461-550.	839A	38	*x550	(d) (d) 1676	6/12/31 11/12/31	—	—	—	212 220	32 34 30	—	—	—	—	—
B-115g-N-9	Richfield Oil Co., Well 3. W. of Long Beach; 1,060 feet N. of point on Rocha St., 1,700 feet W. of Alameda St., at refinery. Use: Industrial. Casing: 24 inches. Perforated 480-585, 590-605. L. A. D. of W. & P. No. 7-D-56.	838B	35	*x800	(d) 156	1/13/31 7/22/31	38.8	—	69 64	211 198	30 25	13 4	Tr.	20 21	5 7	273 64
B-115-M-10	Jesus Cruz, S. of Compton; 50 feet S. of Los Angeles St. (Delano St.), 600 feet W. of Alameda St. Use: Domestic. Casing: 10 inches. W. S. P. 138, No. 539 Downey Quad.	875	34	x175	(d) 555	6/7/8/31 11/7/31	62.6	—	—	203 223	34 38	—	—	—	—	—
B-116-M-9	J. P. Hoepfner, NE. of Wilmington; 1,000 feet S. of Carson St., 150 feet E. of Wilmington Ave., 0.4 mile N. of 223d St. Use: Domestic. Casing: 6 inches. L. A. C. F. C. D. and D. W. R. analyses on 11/7/31 are from same sample.	867	22	x200	(d) 157 562 (d)	6/8/31 7/22/31 11/7/31	63.5 63.5 63.5	—	40	274 277 273	37 38 39	59	0	54	18	64
B-116b-M-10	J. P. Hoepfner, NE. of Wilmington; 600 feet E. of Wilmington Ave., 900 feet S. of Carson St. Use: Irrigation. Casing: 10 inches. Perforated 257-265, 350-395.	867A	22	*x461	(d) (d)	6/7/8/31 11/7/31	—	—	—	273 266	46 53	—	—	—	—	—
B-119j-M-10	Dominguez Water Co., Well 2 (old series). S. of Compton; 10 feet S. of Carson St., 800 feet E. of Alameda St. Use: Capped well and not used. Casing: 12 inches. Perforated 105-119.	876F	28	*164	(d)	June 1931	—	—	—	—	39	—	—	—	—	—
B-119k-M-10	Dominguez Water Co., Well 10 (new series). S. of Compton; 20 feet S. of Carson St., 1,030 feet E. of Alameda St. Use: Municipal. Casing: 16 inches. Perforated 100-135.	876G	28	*158	(d) 171 (d)	6/7/8/31 7/23/31 Dec. 1931	75.7	—	33	210 253 209	41 52 44	108	Tr.	83	17	62
B-119L-M-10	Dominguez Water Co., Well 8 (new series). S. of Compton; 20 feet S. of Carson St., 1,060 feet E. of Alameda St. Use: Municipal. Casing: 12 inches. Perforated 847-981.	876H	28	*1013	(d) 168 (d)	6/7/8/31 7/23/31 Dec. 1931	36.6	—	62	172 174 200	39 23 25	9	1	20	7	59
B-119q-M-10	P. M. Bangle, NE. of Long Beach; 100 feet S. of 223d St. (Wilmington St.), 300 feet E. of Alameda St. Use: Domestic. Casing: 5 inches. Perforated 107-136. L. A. C. F. C. D. and D. W. R. analyses on 11/7/31 are from same sample.	877	24	*x136	(d) (d) 547	6/7/8/31 11/7/31 11/7/31	66.1	—	—	212 221 226	32 45 45	—	—	—	—	—
B-120f-N-10	Mr. Hiratsuki, NW. of Long Beach; 0.20 mile N. of Willow St., 0.25 mile W. of Webster Ave., 0.5 mile W. of Santa Fe Ave., Use: Irrigation. Casing: 8 inches. Perforated 1140-147.	879B	21	*165	(d) (d)	6/19/31 Nov. 1931	—	—	—	352 355	76 92	—	—	—	—	—
B-120h-N-10	Chinese tenant, NW. of Long Beach; 0.08 mile S. of Willow St., 0.25 mile W. of Webster Ave., 0.5 mile W. of Santa Fe Ave. Use: Irrigation and domestic. Casing: 12 inches. Perforated 107-130, 140-145. L. A. C. F. C. D. and D. W. R. analyses on 11/7/31 are from same sample.	879	17	*x170	(d) (d) 158 551 (d) (d)	10/24/29 6/12/31 7/22/31 11/7/31 11/7/31 5/13/32	—	—	—	282 300 320 311 300 317	53 31 64 62 71 78	116	0	88	24	76
B-124-M-10	Oil Operators, Inc., Test Well 1, NW. of Long Beach; 800 feet N. of Wardlow Road, 0.25 mile E. of Santa Fe Ave. (Perris Ave.), 500 feet W. of B-127b-M-10. Open casing in field. Use: Not used. Casing: 8 inches. Perforated 90-112. Samples on 12/9/30 and 6/23/31 were from surface of water. Samples on 10/5/31 were from depths of 45 and 115 feet, respectively.	877C	27	*x134	(d) (d) 399 400	12/9/30 6/23/31 10/7/31 10/5/31	—	—	—	342 345 58	72 80 73 3,639	36	0	747	218	1,075
B-124f-M-10	Mr. Mullhorn, NW. of Long Beach; 0.25 mile S. of 223d St., 0.2 mile W. of Santa Fe Ave. Use: Domestic and irrigation. Perforated 102-127.	887	26	*128	(d) (d) (d)	Oct. 1929 12/9/30 6/19/31	—	—	—	332 307 401	57 72 98	—	—	—	—	—

(C. C.)







Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)					
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)
B-126b-N-10	Irwin Stewart. NW. of Long Beach; 800 feet W. of Santa Fe Ave. (Perris Ave.). 0.25 mile N. of Willow St., 50 feet W. of irrigation well. Use: Irrigation. Casing: 14 inches. Perforated 103-120. Samples on 11/17/31 were from surface of water and near bottom of well.	889A	20	*128	(4) (4) (4)	6/12/31 11/17/31 11/17/31				283 413 141	257 273 272				
B-126c-N-10	Mr. Peterson. Long Beach; 50 feet N. of 25th St., 125 feet E. of Santa Fe Ave. (Perris Ave.). Use: Irrigation. Casing: 8 inches. removed in May, 1932.	889C	20	x55	(4) (4) (4) (4) (4)	Oct. 1929 12/9/30 6/12/31 Dec. 1931 5/13/32				331 247 304 325 283	67 136 146 71 90				
B-126d-N-10	H. & J. Maybury Co. NW. of Long Beach; 800 feet S. of Spring St., 600 feet E. of Santa Fe Ave. (Perris Ave.). Use: Not used. Casing: 12 inches. Perforated 98-110; 120-131. Pump removed in May, 1932.	889D	21	*145	(4) (4) (4)	10/17/29 12/9/30 6/19/31				376 286	46 312 161				
B-126f-N-10	Oil Operators, Inc. Test Well 4. Long Beach; 65 feet S. of Willow St., 45 feet E. of Gate Ave. Use: Test well, not used. Casing: 8 inches. Perforated 105-120. Samples on 10/5/31 were from depths of 93 and 118 feet, respectively.	899	19	*x131	(4) (4) 397 398	12/12/30 6/23/31 10/5/31 10/5/31				273 139 421 601	250 234 240 219			188 0 49	175
B-127-M-10	Fitzgerald Engineering & Construction Co., Test Well 3. NW. of Long Beach, on Los Angeles River flood control levee 10 feet W. of tracks, 1,140 feet N. of 223d St. Use: Not used. Casing: 8 inches. Perforated 143-145.	897I	31	*x164	(4)	12/9/30			36	70	866				
B-127a-M-10	Dominguez Ranch. NW. of Long Beach; 300 feet S. of Carson St., 1,060 feet W. of Los Angeles River. Use: Irrigation. Casing: 12 inches. Perforated 53-101, 130-205.	896	31	*x230	(4) (4)	Oct. 1929 12/9/30				275 173	67 21				
B-127b-M-10	Jesus Cruz. S. of Compton; 70 feet S. of Dominguez St., 1,000 feet W. of P. E. Ry. along Los Angeles River. Use: Domestic. Casing: 12 inches.	890A	35	x127	(4) (4) (4) 545	Oct. 1929 12/9/30 6/31 11/7/31				222 268 280 250	50 71 51 55				
B-127c-M-10	Owner unknown. S. of Compton; 60 feet N. of Dominguez St., 600 feet W. of Los Angeles River. Use: Domestic and stock. Casing: 12 inches.	890B	36	x	(4) (4) (4) 548	10/17/29 12/9/30 6/8/31 11/7/31				176 233 174 183	28 51 25 27				
B-127e-M-10	H. E. Dickson. NW. of Long Beach; 0.35 mile E. of Santa Fe Ave. on S. line of 223d St. (Wilmington St.), 0.15 mile W. of west levee of Los Angeles River. Use: Not used since 4/24/30. Casing: 6 inches.	897	28	x	(4)	Oct. 1929				307	973				
B-127f-M-10	Bell Ranch. NW. of Long Beach; 575 feet N. of Wardlow St. at head of Fashion St., 0.38 mile E. of Perris Ave. 25 feet S. of new well. Use: Not used. Abandoned in 1925 on account of salt. Casing: 12 inches.	897C	27	x	(4) (4) (4)	Oct. 1929 12/9/30 6/8/31				85 170 169	2,210 29 25				
B-127h-M-10	Bell Ranch. NW. of Long Beach; 600 feet N. of Wardlow St. at head of Fashion St., 0.38 mile E. of Perris Ave. Use: Irrigation. Casing: 6 inches. Perforated 840-940.	897D	27	*x900	(4) (4) 155 334 849 904 1025 1189 1262 1351 1463 1528 1570 1658 1742 1835	Oct. 1929 9/31 7/22/31 7/31 3/21/32 5/11/32 6/1/32 7/5/32 8/8/32 9/7/32 10/5/32 11/2/32 12/6/32 1/4/33 2/3/33 6/33				1,314 164 163 168 165 168 168 171 171 168 165 165 171 165 168	28 23 21 21 23 23 21 21 23 21 21 23 23 21 21		2 24 0 24 0 23 23 24 Tr. Tr. 23 23	2 2 0 5 7 5 5 21	
B-127i-M-10	Fitzgerald Engineering & Construction Co., Test Well 2. NW. of Long Beach; 800 feet N. of Wardlow St., 2,560 feet E. of Santa Fe Ave. (Perris Ave.). 20 feet W. of dirt road extension of Pico Ave. Use: Test well for Oil Operators, Inc. Casing: 8 inches. Perforated 65-85. Sample on 11/17/31 was from surface of water.	897H	27	*x200	(4) (4)	12/9/30 11/17/31				95 843	4,460 4,260				



TABLE 14. WELLS IN REDONDO-LONG BEACH AREA—Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>-3</sup> at 25°C)	Boron ppm	Per cent sodium (Na + Mg + Ca)	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
B 127-M 10	H. E. Dickson, NW. of Long Beach; 190 feet S. of 223d St., 0.1 mile N. of west levee of Los Angeles River. Use: Not used. Casing: 6 inches. Samples on 11/17/31 were from surface of water and depth of 70 feet, respectively.	897J	28	x71	(d) (d) (d) (d)	12/ 9/30 6/23/31 11/17/31 11/17/31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B 130-N 7	Weston Ranch, Well 5a, NW. of Wilmington; 40 feet N. of Redondo-Wilmington Blvd., 0.3 mile E. of Hawthorne Ave., 50 feet W. of draw, 20 feet W. of B-1300-N-7. Use: Irrigation. Casing: 14 inches. Perforated 405-423.	250A	148	*x500	1588	11/30/32	111	0.31	.....	461	126	.....	.....	.....	.....	.....
B-130a-N-7	Weston Investment Co., Well 6, NW. of Wilmington; 25 feet E. of Madison St., 800 feet S. of Redondo-Wilmington Blvd. Use: Irrigation. Casing: 14 inches. Perforated 290-306, 410-415, 424-445, 470-500.	250	170	*500	237	8/19/31	103.1	.....	39	427	116	40	0	74	38	99
B-131-N-8	Los Angeles County Water District No. 13, Well 1, NW. of Wilmington; 25 feet E. of Cypress St., 900 feet S. of Redondo-Wilmington Blvd. Use: Municipal.	271	150	x.....	107 (d)	7/23/31 4/21/32	97.8	.....	60	400 376	123 135	2	0	38	23	130
B 133-N 8	Palos Verdes Water Co., Well 1, W. of Wilmington; 200 feet N. of Anaheim St., 75 feet E. of P. E. Ry. Use: Municipal. Casing: 26 inches. Perforated 208-214, 332-610.	301	50	*x610	238 (d)	8/19/31 11/ 5/31	68.8	.....	76	339 120	64 122	1	0	19	10	127
B 133a-N 8	Palos Verdes Water Co., Well 1A, W. of Wilmington; 200 feet N. of Anaheim St., 245 feet E. of P. E. Ry., 170 feet E. of Well 1. Use: Municipal. Casing: 26 inches. Perforated 400-550. Samples on 11/10/31 and 2/8/33 were from depth of 175 feet and surface of water, respectively.	301A	50	*x793	(d) 1804	11/10/31 2/ 8/33	67.2	0.32	.....	110 299	86 69	.....	.....	.....	.....	.....
B 133b-O 8	Royal Palms Golf Club, Well 2, S. of Wilmington; 0.25 mile N. of Channel St., 1,000 feet W. of Gaffey Ave. Use: Irrigation. Casing: 16 inches. L. A. D. of W. & P. No. 3-A-16.	304	8	x208	(f) (d) (d) (d) (d) 841	5/23/30 12/12/30 6/23/31 Dec., 1931 3/22/32	.....	.....	36	346 549 525 275 270	202 330 .....	79	.....	126	45	125
B-133d-O 8	Royal Palms Golf Club, Well 3, S. of Wilmington; 0.25 mile N. of Channel St., 1,200 feet W. of Gaffey Ave., 200 feet W. of Well 2. Use: Irrigation. L. A. D. of W. & P. No. 3-A-14.	304B	10	200	(f) (f) (f)	5/23/30 10/30/30 3/19/31	.....	.....	39 42 45	473 485 414	255 372 275	150 94 161	.....	166 145 127	33 36 42	163 169 187
B 134-N 9	Palos Verdes Estates, Wilmington; 0.43 mile E. of Frigate Ave., 250 feet N. of W. Anaheim St., 0.65 mile E. of P. E. Ry., E. of Gaffey St. Use: Not used. Casing: 24 inches. Gravel 280-300; 314-318, 424-682; 740-762. Samples on 9/29/31 were from depths of 300 and 630 feet, respectively.	312	30	*x010	(d) (d) (d) 370 371	Oct., 1929 12/12/30 6/23/31 9/29/31 9/29/31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B 134-N 8	Palos Verdes Water Co., Well 1-B, Wilmington; 200 feet N. of Anaheim St., 600 feet S. of P. E. Ry., measured from point on P. E. Ry. 200 feet N. of Anaheim St. Use: Irrigation. Casing: 16 inches, in bottom of 71-foot pit. Perforated 300-345.	311C	45	*500	(f)	11/ 1/32	82.9	0.47	69	357	97	1	0	29	14	139
B-133i-N-9	City of Los Angeles, Lomas Well 4, W. of Wilmington; 0.56 mile W. from Frigate Ave. along L St., extended, thence 0.12 mile S., 10 feet W. of angle in private road. Use: Municipal. Casing: 16 inches.	311	20	716	(f) 842	3/19/31 3/25/32	66.5	0.36	71 76	295 311	95 69	3	0	37 18	4 9	124 123
B 133a-N 9	Union Oil Co., Wilmington; 0.23 miles W. of Frigate Ave., 280 feet S. of E. St. Use: Industrial. L. A. D. of W. & P. No. 3-A-13.	312A	25	1,018	(f) (f) (f) (f) (f) (f) (f) (f) (f) (f) 843 901 1031 1128 1252 1352 1452 1517 1560 1628 1729 1824	10/15/29 11/15/29 1/ 6/30 2/28/30 4/28/30 10/30/30 2/15/32 3/22/32 5/11/32 6/ 3/32 7/ 5/32 8/ 7/32 9/ 7/32 10/ 4/32 11/ 2/32 12/ 6/32 1/ 4/33 2/ 3/33 3/ 6/33	.....	89	510 466 445 445 453							



TABLE 14. WELLS IN REDONDO-LONG BEACH AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)					
										Bicarbonate (HCO <sub>3</sub> )	Chloride (Cl)	Sulfate (SO <sub>4</sub> )	Nitrate (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)
B-133m-N-8	Louis Dallapi, NW, of Wilmington; 600 feet S. of S St. (Lomita Blvd.), 50 feet E. of Broadwell St. Use: Domestic. Casing: 7 inches.	300	57	307	(d) (d) (d) 1671	7/15/31 11/12/31 5/7/32 1/13/33	41.9	0.12		227 224 230 229	23 25 25 16				
B-133n-N-8	G. Lorensoni, NW, of Wilmington; 100 feet W. of Broadwell St., 200 feet N. of 25th St. Use: Domestic. Casing: 6 inches.	300A	58	105	(d) (d) 1672	Dec. 1931 5/10/32 1/13/33	102	0.19	50	310 290 336	160 173 148	12	1	75	122
B-133o-N-9	City of Los Angeles, Lomas Well 2, W. of Wilmington; 0.50 mile S. from Frigate Ave. along I. St. extended, thence 0.12 mile S., thence 0.14 mile SW., 50 feet SE. of large building, near north edge of Bixby Slough. Use: Municipal. Casing: 16 inches.	311B	20	509	(d)	2/26/32				336	60				
B-134-N-9	Robert Tracy, Wilmington; 100 feet W. of Bayview Ave., 150 feet S. of Q St. Use: Domestic. Casing: 5 inches.	320	38	x110	(d) 519 1673	6/23/31 11/12/31 1/13/33	43.1 74.0	0.09	46	209 223 250	32 34 114		Tr.	54	78
B-134E-N-9	City of Los Angeles, Wilmington Pumping Plant 1, Wilmington; 240 feet S. of Grant St., 90 feet N. of J St., 100 feet E. of Hubank Ave., 210 feet S. of Well 5. Use: Municipal.	341E	25	600	172	7/23/31	74.5		82	271	101	Tr.	0	14	145
B-135-N-9	Consolidated Lumber Co., Wilmington; 500 feet W. of Badger Ave., 300 feet S. of Anaheim St., 12 feet E. of boiler house in Consolidated Lumber Co. yard. Use: Not used. Casing: 12 inches. Gravel 145-159; 162-169; 172-179. Samples on 9/29/31 were from depths of 150, 175 and 260 feet, respectively.	351A	12	x320	(d) (d) (d) 365 366 367	Oct., 1929 12/12/30 4/23/31 9/29/31 9/29/31 9/29/31		0.23 0.35 0.41	72	248 203 164 143 113 158 107	64 71 110 208 113 1,722				846
B-135a-N-9	Owner unknown, Wilmington; 100 feet S. of Grant St., 150 feet E. of Badger St. Use: Abandoned, filled in. Casing: Dug well.	351	21	x	(d)	Oct., 1929				288	476				
B-135c-N-10	Long Beach Salt Co. W. of Long Beach; 2,600 feet S. of Anaheim St., 3,200 feet E. of Badger Ave., 75 feet N.E. of U. P. R. R. tracks on W. side of Long Beach Salt Co. building. Use: Industrial. Casing: 4 inches.	362	5	x116	(d) (d) (d) (d) (d) 1730	Oct., 1929 12/12/30 6/12/31 Dec., 1931 5/2/32 1/27/33				281 281 291 34 296	1,250 1,314 1,324 1,328 146 1,822			88	860
B-135e-N-10	Mexican tenants, W. of Long Beach; 0.13 mile S. of Anaheim St., 50 feet W. of dirt road to Long Beach Salt Co. plant (which is 0.67 mile W. of Santa Fe Ave.), between two Mexican cabins. Use: Domestic. Casing: 2 inches. L. A. D. of W. & P. No. 3-B-17.	371	13	101	(d) (d) (d) (d) (d) 844 845 965 1019 1129 1253 1353 1453 1518 1561 1631 1731 1825 1826	Oct., 1929 6/12/30 10/28/30 12/12/30 2/27/31 Dec., 1931 3/22/32 5/22/32 7/1/32 7/5/32 8/8/32 9/7/32 10/4/32 11/2/32 12/6/32 1/4/33 2/3/33 3/6/33 3/13/33	244 243 260 262 267 301 314 319 340 345 364 367 388 387	0.13 0.19 0.14 0.19 0.22 0.19 0.16 0.21 0.21 0.20 0.14 0.16	45 43 63 69 69 215 210 217 217 210 214 207 217 220 214 229 229	46 402 266 291 291 463 586 708 772 772 868 932 937 985 1,039 1,079 1,136 1,181 1,154	0 0 12 9 9 5 0 0 0 0 0 1 0 0 0 0	69 31 31 88 94 108 128 137 159 181 181	243 235 215 284 309 331		
B-135g-O-10	Southern California Edison Co., Ltd., W. of Long Beach on Terminal Island; 200 feet N. of U. P. R. R., 500 feet W. of Long Beach Harbor entrance. Between boiler and generator units. Use: Industrial. Casing: 14 inches.	373A	10	250	1805	2/15/33	1,025	0.76		351	3,106				



TABLE 14. WELLS IN REDONDO-LONG BEACH AREA. Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)							
										Bicarbonate radiolite (HCO <sub>3</sub> )	Chloride radiolite (Cl)	Sulfate radiolite (SO <sub>4</sub> )	Nitrate radiolite (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	
B-136-N-10	Pioneer Pacific Worsted Mills, Long Beach; 100 feet N. of 17th St., 25 feet E. of Nadeau Ave. Casing in shallow pump pit. Use: Not used. Casing: 14 inches. Gravel 78-92; 103-123; 135-250. City water passes through centrifugal pump to mills. Valve below pump keeps city water out of well. Sample on 9/28/31 was from depth of 80 feet. Samples on 10/5/31 were from depths of 85, 121 and 175 feet, respectively. L. A. D. of W. & P. No. 3-B-5.	381	10	*x250	(d)	Oct., 1929				170	43						
										190	50	27		12	2	94	
										a155	70	42		16	0	105	
										167	28	18		16	7	58	
										167	30	12		19	5	57	
										75	36	15		18	1	68	
										174	34	12		16	0	75	
										176	32						
										182	26						
										a164	39						
B-136d-N-10	Long Beach Gas Co. Long Beach; 160 feet S. of S. P. R. R., 0.25 miles W. of Perris Ave. under manhole cover in driveway of Long Beach Gas Co. yard, 100 feet W. of meter shop. Use: Industrial. Casing: 10 inches. L. A. D. of W. & P. No. 3-B-20.	381A	10	x137	(d)	Oct., 1929			63	243	43	9		21	13	81	
										261	250	18		51	21	170	
										58	261	230		52	26	148	
										a250	238	24		68	19	146	
										60	228	24		50	23	153	
										a238	224	20		56	21	140	
										263	238						
										258	351	16	1	61	45	186	
										a226	40	40		27	11	82	
										a226	234	17		66	25	122	
B-136h-N-10	Southern California Edison Co., Ltd., Well 1, Long Beach; 600 feet S. of Anaheim St., 1500 feet E. of Perris Ave., S. of S. P. R. R. and E. of slough, near NW corner of Long Beach Gas Co. yard. Use: Industrial. Casing: 12 inches. Gravel 119-137. L. A. D. of W. & P. No. 3-B-18	381E	10	*x201	(f)	1/8/23			61	a226	234	30		66	32	121	
										a238	265	26		68	22	155	
										56	230	232		69	16	137	
										71	223	250		64	0	185	
										a223	228	23		54	18	147	
										a236	212	38		48	16	159	
										a270	327	22		58	30	201	
										50	250	19	0	53	40	136	
										76	255	7,300	972		619	275	4,063
B-137-N-10	Stewart Curtis Packers, Inc., Well 3, Long Beach; 300 feet E. of Channel 2, Long Beach Harbor, in yard of packing plant, 12 feet W. of B-137c-N-10. Use: Not used. Casing: 12 inches. Perforated 83-107. L. A. D. of W. & P. No. 3-B-22.	392B	11	*x125	(f)	6/5/30			76	255	7,300	972		619	275	4,063	
B-137c-N-10	Stewart Curtis Packers, Inc., Well 4, Long Beach; 300 feet W. of Pico St., 125 feet N. of 7th St., 312 feet E. of Channel 2, Long Beach Harbor, 12 feet E. of B-137-N-10, in yard of packing company. Use: Industrial. Casing: 20 inches. Perforated 87-109. L. A. D. of W. & P. No. 3-B-23.	392C	10	*x124	(d)	Oct., 1929			67	287	4,924	663		420	370	2,437	
										332	4,900	653		562	382	2,271	
										292	4,350	725		417	181	2,737	
										264	4,800	774		588	244	3,065	
										274	5,750	774		559	467	3,707	
										71	248	7,300	847	527	479	3,983	
										261	7,000	997					
										293	7,437						
										317	8,822						
										366	8,023						
B-137d-N-10	Associated Oil Co., Seal Beach; 0.6 mile NE. of State Highway (Coast) bridge over San Gabriel River, 500 feet SE. of E. levee of river. Use: Not used. Casing: 8 inches.	494A	7	x-----	(b)	11/10/30			71	332	9,674	1,196	0	482	732	4,815	
										317	10,029	1,294		492	630	5,177	
										293	8,697						
										332	7,278	817	0	370	565	3,684	
										372	8,076						
										327	8,431						
										290	11,005	1,400	0	493	765	744	
										302	9,674						
										482	11,626	1,277	0	455	816	6,035	
										458	7,988	822	0	362	534	4,076	
C-910n-O-12						3/6/33			1.53	665	8,520						
										a185	16						
										a200	12						
										a205	14						
										a204	16						
										a221	20						
										a218	20						



TABLE 14. WELLS IN REDONDO-LONG BEACH AREA - Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)					
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)
C-913c-N-11	Peoples Ice Co., Long Beach; 100 feet N. of Anaheim St., 100 feet W. of head of Freeman Ave. in 32-foot pit near south corners of engine room. Use: Industrial, but not for freezing. Casing: 5 inches.	441	38	x130	(d)	Oct., 1929	-----	-----	-----	208	304	-----	-----	-----	-----
					(a)	12/9/30	-----	-----	-----	179	265	-----	-----	-----	-----
					(a)	7/15/31	-----	-----	-----	298	306	-----	-----	-----	-----
					515	11/11/31	187	-----	-----	308	432	-----	-----	-----	-----
					846	3/24/32	187	0.24	47	305	437	53	0	116	50
					967	5/11/32	192	0.17	47	308	444	54	Tr.	117	50
					1021	6/1/32	190	0.21	-----	293	442	-----	-----	-----	205
					1131	7/5/32	174	0.21	-----	183	458	-----	-----	-----	201
					1255	8/8/32	173	0.15	62	146	404	3	0	58	37
					1355	9/7/32	187	0.17	-----	113	513	-----	-----	-----	225
					1455	10/4/32	174	0.20	-----	110	474	-----	-----	-----	-----
					1520	11/2/32	181	0.22	64	113	504	7	0	56	38
					1563	12/6/32	174	0.21	-----	119	490	-----	-----	-----	218
					1733	2/3/33	196	0.34	58	210	511	26	0	75	50
					1828	3/6/33	186	0.23	-----	113	518	-----	-----	-----	248

\* Log in files of Division of Water Resources.

x Water levels in files of Division of Water Resources.

a Includes small equivalent quantity of Carbonate (CO<sub>3</sub>).b Sulfate (SO<sub>4</sub>) determined by turbidity method.

c All true values estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.

d Analysis by Los Angeles County Flood Control District, Los Angeles.

e Analysis by Standard Oil Co. of California.

f Analysis by City of Los Angeles, Department of Water and Power Laboratory; Carl Wilson, Director.

g Analysis by California State Department of Public Health, Bureau of Sanitary Engineering.

h Analysis by Smith-Emery Co., Los Angeles.

i Analysis by Arthur R. Mass Laboratories, Los Angeles.

j Analysis by City of Long Beach, Engineering Laboratory.

k Analysis by Orange County Flood Control District, Santa Ana, California.

l Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.



TABLE 15. SURFACE WATERS IN REDONDO-LONG BEACH AREA

Well number	Location and description	Location number	Elevation of ground	Discharge in second-foot	Laboratory number	Date	Specific electrical conductivity (K <sub>20</sub> at 25 C)	Boron ppm	Per cent sodium (Na x 100) (Ca & Mg + Na)	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
S897-M-10	Los Angeles River. NW. of Long Beach. Sampled just below 223d St. (Wilmington St.), opposite Oil Operators, Inc. Surface flow and industrial waste.	S897	21	-----	854	3/24/32	3,742	31.0	88	723	14,289	16	0	504	265	8,163
S890-N-10	Los Angeles River. W. of Long Beach. Sampled at Tate Bridge. Surface flow.	S890	8	-----	(d)	10/26/32	-----	-----	61	312	332	291	-----	94	40	289
S824-M-9	Nigger Slough. SE. of Gardena. Sampled at Main St. (Harbor Blvd.) crossing. Surface flow.	S824	11	-----	872	4/11/32	482	3.45	75	314	1,314	264	0	103	89	879
S835-M-9	Nigger Slough. SE. of Gardena. Sampled at Avalon Blvd. Bridge. Nearly all industrial waste.	S835	10	-----	875	4/11/32	771	4.29	90	512	1,576	1,112	0	83	40	61,764
S846-M-9	Nigger Slough. NW. of Long Beach. Sampled at bridge 385, 0.25 mile N. of Carson St., 0.34 mile E. of Avalon Blvd.	S846	15	-----	(d)	3/12/32	-----	-----	88	0	1,440	623	-----	77	31	1,085
S860-N-10	Nigger Slough. NW. of Long Beach. Sampled 150 feet N. of Alameda St. Bridge, which is 300 feet N. of Willow St.	S860	10	-----	(d)	2/27/32	-----	-----	68	123	201	209	-----	46	19	189
S1353-J-7	Pan California Oil Co., Robert Bromberg, Receiver, Inglewood; 165 feet S. of Regent St., 453 feet W. of Prairie St. Oil well waste water.	S1353	150	-----	1295	8/30/32	5,330	51.2	-----	554	19,347	-----	-----	-----	-----	-----

\* Includes small equivalent quantity of carbonate (CO<sub>3</sub>).

† Sodium 120 ppm. Potassium 644 ppm.

\* Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.

d Analysis by City of Long Beach, Engineering Laboratory.



TABLE 16. WELLS IN SAN BERNARDINO AREA

Well number	Location and description.	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical resistance (Kx10 <sup>3</sup> at 25°C)	Boron ppm	Per cent sodium (Ca + Mg + Na)	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
D 1173b F 25	Glen Helen Ranch, Well 2. NW. of San Bernardino; 600 feet SE. of Cajon Road, 0.65 mile SW. of A. T. & S. F. Ry., 930 feet SW. of Old County Road, SW. of dairy house. Use: Irrigation, artesian. Casing: 12 inches.	1949B	2,017	340	1309	9/2/32	46.1	0.04	22	102	11	52	2	39	22	24
D 1182 L 26	Fontana Union Water Co., F. U. Well 13. NW. of San Bernardino; 1.0 mile NE. of Riverside Ave. from point 0.38 mile SE. of Linden Ave. Use: Irrigation and domestic. Casing: 20 inches. Gravel 165-465.	15713	1,550	*x551	620 1321	1/5/32 9/2/32	22.5 22.7	0.02 0.12	21 21	122 122	4 5	10 10	2 2	28 28	7 7	13 12
D 1183a F 26	Mussey Mutual Water Co., Well 1. NW. of San Bernardino; 0.24 mile N. of Ogden St., 0.35 mile W. of Gray St. Use: Domestic and irrigation. Casing: 20 inches. Perforated 69-302.	15733	1,493	*x351	1324	9/2/32	47.3	0.12	14	235	7	39	1	64	15	16
D 1183b F 26	Lyle Creek Water and Improvement Co., Upper Group New Well 4. NW. of San Bernardino; 2,000 feet NE. of Riverside Ave. from point 5,000 feet NW. of bend 900 feet N. of Highland Ave., 30 feet SE. of Upper Group Old Well 4. Use: Irrigation. Casing: 20 inches. Perforated 200-630.	15714A	1,475	*x647	1322	9/2/32	30.1	0.05	17	168	2	16	1	44	8	13
D 1183c F 26	Lyle Creek Water and Improvement Co., Lower Group Well 2. NW. of San Bernardino; 3,000 feet NE. of Riverside Ave. from point 1,900 feet NW. of bend, 900 feet N. of Highland Ave. Use: Irrigation. Casing: 20 inches. Perforated 104-196; 206-234; 264-300; 306-390.	18725A	1,410	*x410	1323	9/2/32	20.3	0.07	16	168	2	17	1	43	7	12
D 11944 F 26	Citizens Land and Water Co., Lord Well 6. NW. of San Bernardino; 1,850 feet S. of Highland Ave., 2,560 feet E. of Eucalyptus Ave. Use: Formerly irrigation, abandoned in 1925. Casing: 12 inches. Gravel 20-250; 428-448.	18736	1,295	*500	(4)	Nov. 1918			19	156	9	12	4	46	6	15
D 11945 F 26	Citizens Land and Water Co., Lord Well 1. NW. of San Bernardino; 2,650 feet N. of Base Line Ave., 2,600 feet E. of Eucalyptus Ave.; Lord Well 2 is 150 feet W. and 20 feet N. Use: Irrigation and domestic. Casing: 20 inches. Perforated 218-250; 297-301; 318-324; 331-358; 390-438; 450-468; 478-508.	18757G	1,290	*x629	(1) 618	4 15, 31 12 19, 31	28.5	0.02	15	180 165	5 2	640 12	1	40	7	11
D 11952 F 26	Citizens Land and Water Co., Old Ferguson Well 1. NW. of San Bernardino; 3,000 feet N. of Highland Ave., 200 feet E. of Sycamore St., extended. Use: Formerly irrigation, not used. Casing: 20 inches. Gravel 120-488.	18735	1,378	*x495	(4)	Nov. 1918			21	164	5	14	3	44	7	17
D 1255a C 24	Mr. Lester. SW. of Coxy Dell; 950 feet E. and 320 feet N. of W. 1/4 corner, Sec. 12, T. 2N., R. 6W., S. B. & M. NW. of Lost Lake, near Keenbrook. Use: Domestic. Well is very near San Andreas fault.	10432	2,778	42	(5)	10/19/32	78.8	0.11	11	372	12	143	7	107	26	24
D 1260 B 24	Atchison, Topeka and Santa Fe Railway Co., Cajon; 50 feet S. of A. T. & S. F. Ry., 100 feet E. of Cajon Creek, 1,375 feet NW. of water tanks at Cajon Station. Use: Boiler feed and domestic—treated for boiler use. Casing: 15½ inches.	20439	2,960	74	1304	9/2/32	71.0	0.05	27	360	12	64	4	78	26	51
E 1 E 27	City of San Bernardino, Devil Canyon Well 4. NW. of San Bernardino; 4,250 feet NE. of Belmont Ave. along Pine Ave., extended, 950 feet SE. of Pine Ave. produced, 50 feet N. of fence at mouth of Devil Canyon, 150 feet NW. of Devil Canyon Well 3. Use: Municipal. Casing: 8-foot casing.	10569	1,891	x50	1308	9/1/32	59.3	0.02	10	308	9	57	1	84	22	15
E 1 B F 27	W. L. Wiggins. NW. of San Bernardino; 100 feet E. of California Ave., 400 feet S. of Darby St. Use: Irrigation and domestic. Casing: 12 inches.	18765	1,296	x25	617	12/19/31	41.9	0.03	13	232	6	25	2	59	15	14
E 5a F 27	Mt. Vernon Water Co., W. of San Bernardino; 75 feet S. of Highland Ave., 0.13 mile W. of California Ave., E. well of two 150 feet apart. Use: Irrigation. Casing: 20 inches. Perforated 225-308; 348-374; 382-422; 462-592.	18766	1,259	*x598	1325	9/2/32	45.6	0.08	14	238	7	36	1	62	14	16
E 9d G 27	Citizens Land and Water Co., Raynor Well. W. of San Bernardino; 600 feet S. of Base Line Ave., 0.9 mile E. of Pepper Ave., near center of Lyle Creek Wash. Use: Abandoned.	18767		600	(4)	Nov. 1918			14	176	6	17	3	42	8	10
E 71 G 27	Citizens Land and Water Co., New Raynor Well 4. W. of San Bernardino; 400 feet S. of 9th St., 1,300 feet E. of Terrace St., 12 feet N. of Old Raynor Well 4. Use: Irrigation.	18768B	1,160		1326	9/2/32	44.9	0.07	10	235	11	35	2	68	12	11



TABLE 16. WELLS IN SAN BERNARDINO AREA Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
E-10-E-27	City of San Bernardino, Newmark Well, N. of San Bernardino; 300 feet N. of A St., 0.49 mile W. of Third Ave. Use: Municipal and irrigation. Casing: 24 inches.	18782	1,413	x410	614 1327	12/17/31 9/1/32	34.8 35.6	Tr. 0.08	12 11	204 204	6 9	12 12	2 2	51 51	11 10	11 10
E-15a-G-27	Terrace Water Co. W. of San Bernardino; 2,720 feet W. of Mt. Vernon Ave., 220 feet N. of Rialto Ave. Use: Irrigation. Casing: 16 inches.	18779		x446	(4) 1411	Aug., 1919 9/21/32			18 9	180 217	8 5	45 31	0 2	49 61	10 12	16 10
E-15b-G-27	Barnhill Mutual Water Co. W. of San Bernardino; 242 feet W. of and 275 feet S. of NE. corner of Lot 20, Block 25, San Bernardino Rancho. Use: Abandoned in 1922. Casing: 12 inches.	18779A		150	(4)	Aug., 1919			47	104	6	45	0	22	6	32
E-23-G-27	Southern California Ice Co., Well 1. San Bernardino; 160 feet W. of I St., 250 feet N. of 3d St., 97 feet W. of engine house well. Use: Ice plant and domestic. Casing: 16 inches. Perforated 130-162; 190-198; 250-290; 320-376.	18799	1,069	*x354	(4) 1319	Aug., 1927 9/1/32			43 15	250 247	7 9	90 13		48 63	13 14	60 18
E-24-E-28	Mrs. A. L. Hurt, N. of San Bernardino; 0.9 mile N. of Willow Nook Road, 20 feet W. of Arrowhead Drive, 240 feet N. of 53d St. Inside of rock house. Use: Domestic and irrigation.	18812	1,483	x71	(4) (5)	Feb., 1919 6/13/31			15 28	128 192	24 11	71 19	17 2	24 46	34 6	16 25
E-29-G-28	City of San Bernardino, Hanford Well 1. San Bernardino; 0.13 mile N. of Rialto Ave., 0.16 mile E. of E St., 20 feet S. of 2d St., 140 feet E. of D St., 15 feet S. of pump house in yard of Water Department. Use: Municipal. Casing: 16 inches.	18809	1,025	x736	(4)	4/15/31				192	7	b27				
E-29a-G-28	City of San Bernardino, Hanford Well 2. San Bernardino; 60 feet E. of D St., 170 feet S. of 2d St. In yard of Water Department. Capped and flows to covered concrete reservoir at Well 1. Use: Municipal.	18809A	1,025	x1,200	(5) 1310	1/23/31 9/1/32	31.1 29.3	0.17 0.22	57 68	116 113	14 16	22 24		19 14	3 4	36 48
E-34a-E-28	T. J. S. Clapp, NE. of San Bernardino; 600 feet N. of 40th St. (Willow Nook Road), 0.51 mile E. of Valencia Ave. Use: Irrigation. Casing: 16 inches. Perforated 240-294.	18833A		*x294	1313	9/1/32	55.5	0.56	64	146	23	91	1	27	8	82
E-36a-F-28	City of San Bernardino, Parris Hill Well 3. San Bernardino; 200 feet S. of Highland Ave., 1,300 feet E. of Waterman Ave. Use: Municipal. Casing: 20 inches. Perforated 102-143; 156-202.	18826A	1,165	*x265	1311	9/1/32	39.1	0.20	37	137	12	56	10	35	9	34
E-38-G-28	City of Riverside, Benson Tract, Well F. E. of San Bernardino; 1,810 feet E. of Waterman Ave., 1,010 feet N. of 6th St. Use: Municipal. Casing: 10 inches.	18828	1,048	x520	(5)	1/23/31	35.4	0.01	1	198	4	10		50	12	1
E-39-G-28	City of Riverside, Well D. E. of San Bernardino; 1,400 feet E. of Waterman Ave., 50 feet S. of 6th St., on E. bank of Warm Creek. Use: Municipal. Casing: 10 inches.	18829	1,040	x546	(5) (6)	1/23/31 4/18/31	37.3	Tr.	0	201 207	4 8	11 b20		52	13	Tr.
E-39a-G-28	City of Riverside, Well C. E. of San Bernardino; 1,675 feet N. of 3d St., 1,360 feet E. of Waterman Ave., on E. edge of Warm Creek. Use: Municipal. Casing: 10 inches.	18829A		557	(5) (6)	1/23/31 4/18/31	35.6	0.02	14	180 183	4 10	13		43	8	11
E-39b-G-28	City of Riverside, Well E. E. of San Bernardino; 2,160 feet E. of Waterman Ave., 1,910 feet N. of 3d St., 750 feet E. of Warm Creek. Use: Municipal. Casing: 10 inches.	18829B		550	(5) (6)	1/23/31 4/18/31	34.5	Tr.	17	177 193	2 9	12 b15		45	5	13
E-39c-G-28	City of Riverside, Frazier Well. San Bernardino; 1,260 feet N. of 3d St., 950 feet E. of Waterman Ave. Use: Municipal. Casing: 10 inches.	18829C		625	(5) (6)	1/23/31 4/18/31	36.1	0.03	4	186 193	4 10	10 b30		46	11	3
E-39d-G-28	City of Riverside, Well A. E. of San Bernardino; 300 feet N. of 3d St., 200 feet E. of Waterman Ave., 75 feet S. of Warm Creek. Use: Municipal—artesian flow. Casing: 10 inches.	18829D	1,026	x913	(5) (6)	1/23/31 4/18/31	37.5	0.09	44	122 100	20 28	39 b35		29	6	34
E-39e-G-28	City of Riverside, Well B. E. of San Bernardino; 250 feet N. of 3d St., 1,110 feet E. of Waterman Ave., 270 feet SE. of Warm Creek and 220 feet NE. of City Creek. Use: Municipal. Artesian flow. Casing: 10 inches.	18829E	1,034	x933	(5)	1/23/31	33.2	Tr.	42	125	12	28		28	4	29
E-42a-G-28	City of San Bernardino, Antil Basin Well 5. E. of San Bernardino; 900 feet N. of E. 6th St., 0.3 mile W. of Stiles St. Use: Municipal. Casing: 16 inches.	18838A		x1,410	(5) (6) 616 1314	4/7/31 4/15/31 12/17/31 9/1/32	36.2 34.8 35.9	Tr. 0.05 0.12	58 56 57	125 127 125 125	16 20 20 20	44 b46 43 43		25 25 25 1	4 3 4 4	46 46 47 47



TABLE 16. WELLS IN SAN BERNARDINO AREA—Continued

Well number	Location and description	Location number	Elevation of well ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>-3</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						Sodium (Na)
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	
E-42h-G-28	City of San Bernardino, Antil Basin Well 1. E. of San Bernardino; 530 feet N. of E. 6th St., 0.45 mile W. of Stiles St. Use: Municipal—artesian. Casing: 12 inches. Gravel 176-196; 206-224; 232-250; 266-290; 429-426; 456-614.	18838H	—	*614	(†)	4/15/31 12/17/31 1315 9/1/32	34.8 35.5	0.01 0.26	10 24	146 195 189	9 7 7	148 16 18	1 1	48 45	9 9	17 21
E-43-G-28	Waterman Ranch. E. of San Bernardino; 0.30 mile W. of Tippecanoe St., 50 feet S. of Cardiff St. Use: Irrigation. Casing: 10 inches. Perforated 974-976; 1002-1147.	18839	1,051	*1147	1413	9/21/32	34.1	0.03	47	137	18	27	1	29	4	37
E-43b-G-28	Mr. Davis. E. of San Bernardino; 300 feet W. of Stiles St. (Tippecanoe St.), 20 feet N. of 3d St., 20 feet S. of City Creek. Use: Irrigation. Casing: 10 inches.	18839B	1,063	x-----	(e)	4/9/31 9/21/32	27.9 28.0	Tr. 0.06	40 39	134 134	4 5	22 20	----- 1	28 27	3 5	25 27
E-44f-F-28	H. F. Rubsomb. NE. of San Bernardino; 400 feet N. of Olive St., 400 feet W. of Mountain Ave. Use: Irrigation. Casing: 12 inches.	18845B	-----	231	1316	9/1/32	56.4	0.66	54	143	21	102	11	37	10	74
E-44g-E-28	Lady Margaret Sharp. NE. of San Bernardino; 1,600 feet N. of 40th St. (Willow Nook Road), 600 feet W. of Mountain Ave., extended S. of swimming pool. Use: Irrigation and domestic. Casing: 4 x 4 dug well.	18842	1,550	-----	1425	9/22/32	37.0	0.42	58	125	14	42	1	23	5	49
E-45b-F-28	George M. Cooley. NE. of San Bernardino; 10 feet W. of Del Rosa Ave. at turn to east; 0.25 miles S. of Highland Ave. Use: Irrigation. Perforated 75-83.	18846B	1,150	x124	(c)	2/28/33	50.6	0.31	39	131	27	98	27	44	14	49
E-46i-F-28	A. Osburn. E. of San Bernardino; 200 feet N. of Base Line Ave., 0.1 mile E. of Del Rosa Ave. Use: Irrigation and domestic. Casing: 3 inches.	18857D	1,098	x165	1317	9/1/32	45.3	0.26	61	156	18	41	27	24	7	66
E-46L-F-28	A. Osburn. E. of San Bernardino; 500 feet N. of Base Line Ave., 1,000 feet W. of Sterling St. Use: Irrigation. Casing: 12 inches. Gravel 360-408; 424-432; 460-478; 488-508; 520-628.	18857F	-----	*628	1318	9/1/32	63.4	0.37	22	116	36	159	1	81	12	34
E-46n-F-29	J. Dolimer. E. of San Bernardino; 100 feet N. of Base Line Ave., 400 feet E. of Sterling St. Use: Domestic and irrigation. Casing: 12 inches.	18857G	1,105	470	(c)	10/20/32	62.6	0.71	-----	-----	-----	-----	-----	-----	-----	-----
E-48-G-28	M. C. Freitas. E. of San Bernardino; 100 feet S. of 3d St., 0.43 mile W. of Sterling St. Use: Domestic. Casing: 6 inches in 20-foot pit. Open bottom casing.	18849	1,092	50	1412	9/21/32	29.8	0.04	22	134	5	13	11	32	9	15
E-40-F-29	West Highlands Water Co. E. of San Bernardino; 20 feet S. of Highland Ave., 0.09 mile W. of Victoria St. In corrugated iron pump house. Use: Irrigation. Casing: 18 inches. Gravel 189-224.	18876	1,267	*x224	(d)	Oct. 1918	-----	-----	24	128	10	15	13	27	10	16
E-49a-F-29	East Highland Orange Co. NE. of San Bernardino; 495 feet N. of Pacific St., 40 feet W. of Orange St. Use: Domestic.	18866	-----	-----	(e)	10/29/26	-----	-----	39	232	16	25	-----	43	9	43
E-49d-F-29	Patton State Hospital. W. of Highland; 150 feet S. of Highland Ave., 0.16 mile W. of Central Ave. Use: Irrigation and domestic. Casing: 18 inches. Perforated 130-320.	18876A	1,255	*x351	1428	9/23/32	40.9	0.08	44	177	16	53	13	32	10	44
E-50c-F-29	East Highland Orange Co. E. of San Bernardino; 600 feet S. of Pacific St., 40 feet W. of Orange St., extended south, 20 feet E. of new well drilled March, 1931. Use: Formerly irrigation; abandoned February, 1931. Casing: 12 inches. Gravel 120-160; 229-250; 364-729.	18867	1,148	*x752	(e)	10/29/26	-----	-----	39	146	32	136	-----	61	9	55
E-50h-F-29	Harlem Springs Resort. E. of San Bernardino; 50 feet E. of Victoria St., 0.12 mile N. of Base Line Ave. Use: Domestic. Casing: 7 inches. Open bottom casing, no perforations.	18877D	1,144	238	(e)	4/6/31 9/22/32	27.3 28.3	0.02 0.06	74 77	122 125	7 5	17 10	----- 11	10 12	2 1	24 52
E-50m-F-29	Base Line Laundry. E. of San Bernardino; 800 feet N. of Base Line Ave., 0.58 mile E. of Sterling St. Use: Laundry.	18867G	1,125	-----	(e)	4/4/31	38.4	0.25	78	116	16	55	-----	11	3	63
E-51a-G-28	A. Gregory. E. of San Bernardino; 0.10 mile N. of 6th St., 0.35 mile E. of Sterling St. Use: Irrigation. Casing: 14 inches. Perforated 158-165; 361-379; 391-411; 436-494; 498-504.	18868	1,092	*523	1427	9/23/32	22.5	0.08	28	110	5	7	6	27	1	13
E-53-F-29	J. D. Boley. NW. of Highland; 0.62 mile N. of Highland Ave., 800 feet W. of Victoria St. Use: Irrigation. Casing: 16 inches. Perforated 289-425; 478-498.	18875	1,398	*615	(e)	12/15/31	39.6	0.13	44	144	18	55	5	30	10	41



TABLE 16. WELLS IN SAN BERNARDINO AREA - Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 (Ca + Mg + Na)	Constituents (parts per million)					
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)
E-54 F-29	Corwin Well Co., Highland, 20 feet S. of Atlantic Ave., 0.27 mile W. of Boulder Ave. Use: Irrigation. Casing: 20 inches. Perforated 306-348; 352-471.	18806	1,410	*513	(4) 1423	Aug. 1930 9/22/32	34.0	0.23	71	157 140	15 14	20	6	16	3
E-54c-F-29	Thompson Brothers and Bear Valley Water Co., Barnes Well, NW. of Highland; 40 feet N. of Highland Ave., 0.12 mile W. of Palm Ave. Use: Irrigation. Casing: 20 inches. Perforated 244-254; 266-420; 471-490.	18886A	1,376	*515	(9) (9)	4/29/31 8/4/31	40.6 42.9	0.18 0.16	61 68	149 165	14 20	52 60	3	23 24	5 3
E-58a-F-30	American States Water Service Co., City Creek Highland Plant 1, Well 2, NE. of Highland; 0.26 mile E. of City Creek Road, 300 feet N. of Highland Ave. Use: Domestic.	18906A	1,498	308	(9)	4/25/30	59.9	1.03	86	122	20	83		9	2
E-58b-F-29	Highland Well Co., NE. of Highland; 115 feet N. of Highland Ave., 690 feet E. of City Creek. Use: Irrigation.	18906	1,473	72	(9)	Oct. 1918			24	122	10	21	2	28	8
E-58c-F-29	American States Water Service Co., City Creek Highland Plant 1, Well 1, NE. of Highland; 60 feet N. of Highland Ave., 0.25 mile E. of City Creek Road, W. of reservoir. Use: Domestic and irrigation.	18906C	1,492		1422	9/22/32	48.1	0.46	51	162	16	60	18	32	10
E-58f-F-29	Base Line Well Co., SE. of Highland; 50 feet N. of Base Line Ave. between branches of City Creek 0.13 mile E. of Boulder Ave. Use: Irrigation. Perforated 56-68; 150-175.	18907A		*352	1419	9/22/32	28.3	0.08	30	122	7	10	9	28	8
E-59d-G-30	J. D. Langford, East Highland; 400 feet N. of 3d St., 600 feet E. of Orange St. Use: Irrigation. Casing: 18 inches. Perforated 175-292.	18918A	1,265	*305	1418	9/22/32	26.1	0.05	27	113	7	9	9	27	7
E-60a-F-30	Mr. Seely, E. of Highland; 50 feet W. of Church St., 1,300 feet N. of Base Line Ave. Use: Domestic and irrigation. Drilled to replace shallow well 20 feet away.	18927	1,555	506	(9)	8/5/31	29.2	0.05	50	143	7	21	10	23	6
E-61c-G-30	East Highlands Domestic Water Co., Edward Well, East Highland; 550 feet S. of Santa Ana Canyon Road, 25 feet W. of University St., 130 feet N. of Sycamore Drive. Use: Domestic.	18938			(9) 1416	Oct. 1918 9/22/32	23.8	0.06	14 30	92 107	10 5	10 8	0 9	20 24	6 6
E-62a-G-30	Dr. E. W. Burke, et al., E. of East Highland; 0.25 mile N. of Santa Ana Canyon Road, 1.0 mile E. of Weaver St., 0.2 mile S. of mouth of Plunge Creek. Use: Irrigation. Casing: 24 inches. Perforated 250-308; 326-348.	18958		*375	1421	9/22/32	25.3	0.08	30	119	7	14	2	25	8
E-63b-G-31	East Highlands Orange Co. and W. V. Ranney, NE. of Redlands; 4,900 feet W. of intersection of Greenspot Road, 1,400 feet S. of Santa Ana Canyon Road. Use: Irrigation. Casing: 24 inches. Perforated 292-340; 344-458.	18969		*460	1414	9/22/32	23.2	0.04	29	110	4	14	3	24	6
E-64b-G-31	North Fork Water Co., New Well, NE. of Redlands; 100 feet N. of Santa Ana Canyon Road, 150 feet W. of Greenspot Road, 0.5 mile W. of mouth of Santa Ana Canyon. S. one of two wells; see Irrigation. Casing: 24 inches. Perforated 65-162; 165-297.	18989A	1,510	*267	1415	9/22/32	36.1	0.06	30	152	5	38	4	38	9
E-65-G-31	Western Fruit Co., NE. of Montone; 0.22 mile E. from intersection of Greenspot Road and Newport Ave., thence 1.05 mile N. and thence 0.2 mile NW. Well in canyon 400 feet NE. of this point. Use: Irrigation. Casing: 20 inches. Perforated 24-130; 150-260.	19009	2,060	*357	1417	9/22/32	54.4	0.08	21	232	16	63	2	58	19
E-78-G-27	City of Colton, Highline Well 8, N. of Colton; 175 feet S. of Rialto Ave., 0.52 mile W. of Mt. Vernon Ave. Use: Municipal. Casing: 14 inches.	17970C		x640	(1)	4/16/31				208	8	935			
E-55c-G-27	City of Colton, New Well 12, San Bernardino; 350 feet N. of Mill St., 50 feet E. of Mt. Vernon Ave. Use: Municipal. Casing: 10 inches. Perforated 535-608.	17980	1,063	*304	(9) (1)	3/29/31 4/16/31	37.2	0.01	34	207 218	5 8	34 40		43	8
E-59b-G-27	De Sienna Mission Hot Springs, Hot Well, San Bernardino; 310 feet S. and 20 feet W. of center line of private road extending southerly to Colton Ave. from junction of K St. and Hillcrest Ave. Use: Swimming bathes. Casing: 12 inches. Perforated 304-318; 376-386; 470-485; 502-520; 522-544.	17991	1,035	*547	(9)	4/24/30	59.9	1.65	82	220	99	5		21	1



TABLE 16. WELLS IN SAN BERNARDINO AREA Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 (Ca + Mg + Na)	(Constituents (parts per million))						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
E 80e-G-27	De Sienna Mission Hot Springs, Cold Well. San Bernardino; 370 feet S. and 20 feet W. of private road extending southerly to Colton Ave. from junction of K St. and Hillcrest Ave. Use: Domestic. Artesian well. Bubbles rise through water.	17991A	1,025	200	(e)	4/3/31	35.9	0.02	43	214	7	25		40	5	42
E-93d-G-2s	Meeks and Daly Water Co. S. of San Bernardino; 0.7 mile S. of Mill St., 100 feet W. of E. St. Use: Irrigation. Casing: 20 inches. Perforated 24-34; 52-572. Sample on 8/13/31 is composite above 450 feet, on 8/27/31 above 490 feet (new gravel at 480 feet), on 9/2/31 above 524 feet, on 9/11/31 above 562 feet (new 12-foot gravel stratum), on 9/16/31 above 590 feet, on 10/28/31 is composite 5 days after starting pump, and on 12/15/31 and 1/11/32 pump discharge 5 and 7 second feet, respectively.	18001B	980	*603	(e)	8/13/31	41.9	0.07	16	238	7	23	Tr.	57	12	17
						8/27/31	40.8	0.21	26	210	7	24	0	47	9	25
E-93p-G-2s	Gregory and Langford. S. of San Bernardino; 50 feet W. of Arrowhead Ave., 0.7 mile S. of Mill St. Use: Irrigation and domestic. Casing: 10 inches.	18001F			(e)	9/2/31	45.2	1.03	72	171	46	22	0	22	2	76
						9/16/31	45.7	1.01	69	163	44	20	0	22	3	71
E 94a-H-27	City of San Bernardino. S. of San Bernardino; 850 feet W. of E. St., 2400 feet N. of Colton Ave. Use: General, at sewage disposal plant. Perforated above plug at 150 feet.	18002	972	300	(e)	6/13/31	51.9	0.62	62	140	69	33	Tr.	32	3	71
E-94b-H-2s	City of Riverside, Paine Well. S. of San Bernardino; 590 feet S. of Dumas Drive, 760 feet W. of Waterman Ave. Use: Scott's laundry without additional heating.	18012	1,007	x	(d)	Mar., 1930			67	105	78	27		12	11	71
						1/17/31	48.8	1.52	65	95	75	26		8	13	63
E-94c-H-2s	City of Riverside, Byrne Tract Well. S. of San Bernardino; 50 feet S. of Dumas Drive, 1750 feet W. of Waterman Ave. Use: Municipal. Casing: 20 inches. Perforated 645-657; 673-681; 779-789; 851-873; 879-895; 907-943; 975-1014; 1015-1035; 1063-1074; 1091-1125.	18012A	995	*1,162	(e)	2/4/31	47.4	1.66	88	95	73	27		7	1	85
						3/26/31	46.8	1.48	87	98	73	18		8	2	81
E-94d-H-2s	Riverside Water Co. S. of Dumas Drive, 1750 feet W. of Waterman Ave. Use: Irrigation. Casing: 20 inches. Perforated 64-108; 150-180; 182-192; 210-220; 220-236. Sample on 6/7/31 bailed from 90-foot depth while drilling, on 6/10/31 coarse gravel at 150-160 with slight flow, and on 6/13/31 coarse gravel at 220-236 with slight flow. Gravel again encountered at 334-340 but casing was not cut.	18012B	997	*350	(e)	6/7/31	41.7	0.01	26	171	11	42	4	46	8	24
						6/10/31	43.0	0.02	32	201	11	40	Tr.	48	8	32
E-94e-H-2s	Mrs. M. L. Hunt, Well 3. E. of Colton; 245 feet E. of Hunt Ave., 900 feet S. of Colton Ave. One of four flowing wells around small reservoir. Use: Irrigation. Casing: 10 inches. Gravel 90-108; 116-130.	18013B	990	*400	(d)	3/30/26			42	207	36	53		42	13	53
E-94f-H-2s	City of Riverside, Hunt Tract Well 6. E. of Colton; 90 feet W. of Waterman Ave., 90 feet S. of Colton Ave. Use: Municipal. Casing: 8 inches.	18013C	1,015	538	(e)	1/30/31	40.9	0.40	69	137	34	22		17	4	61
						4/18/31				144	34	42				
E-94g-H-2s	City of Riverside, Hunt Tract Well 8. E. of Colton; 28 feet W. of Waterman Ave., 43 feet S. of Colton Ave. Use: Municipal. Casing: 10 inches.	18013D	1,015	544	(e)	1/30/31	39.5	0.31	67	140	28	33		20	3	59
						4/18/31				144	31	30				
E-94h-H-2s	City of Riverside, Hunt Tract Well 9. E. of Colton; 11 feet W. of Waterman Ave., 11 feet S. of Colton Ave. Use: Municipal. Casing: 10 inches.	18013E	1,015	574	(e)	1/30/31	37.3	0.31	71	131	30	31		16	3	59
						4/18/31				134	34	38				
E-94i-H-2s	Oehl Packing Co. S. of San Bernardino; 250 feet W. of E. St., 650 feet N. of Colton Ave. Use: Domestic and packing house.	18002A	975	180	(e)	4/9/31	50.4	0.11	48	201	30	38		39	8	55
E-95b-H-2s	City of Riverside, Stewart Tract Well 19. E. of Colton; 365 feet N. of S. P. R., 0.25 mile S. of Colton Ave., 70 feet W. of Waterman Ave. Use: Municipal. Casing: 20 inches. Perforated 115-131; 205-223; 400-440; 525-539; 675-760.	18014A	1,018	450	(e)	1/30/31	58.4	0.15	42	238	30	45		48	11	55
						4/18/31				223	39	48				
E-95c-H-2s	City of Riverside, Stewart Tract Well 21. E. of Colton; 360 feet N. of S. P. R., 0.25 mile S. of Colton Ave., 130 feet W. of Waterman Ave. Use: Municipal. Casing: 20 inches. Perforated 115-131; 205-223; 400-440; 525-539; 675-760.	18014B	1,018	*815	(e)	1/30/31	45.4	0.17	61	155	32	40		22	7	60



TABLE 16. WELLS IN SAN BERNARDINO AREA—Continued

[illegible]



TABLE 16. WELLS IN SAN BERNARDINO AREA—Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Per cent sodium (Na + Mg + Ca)	Constituents (parts per million)						
										Borate radiolite (HCO <sub>3</sub> )	Chloride radiolite (Cl)	Sulfate radiolite (SO <sub>4</sub> )	Nitrate radiolite (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
E 98p G 28	Gage Canal Co., Well 29-2, N. of Loma Linda; 0.06 miles N. of San Bernardino Ave., 0.03 mile W. of Tippecanoe Ave., on N. side of Gage Canal. Use: Irrigation. Casing: 24 inches. Perforated 122-299.	18032A	1,040	*325	1217	8/ 6/32	54.3	0.01	17	183	23	85	9	73	15	23
E 98s H 28	Gage Canal Co., Well 29-1, N. of Loma Linda; 0.27 mile N. of Colton Ave., 0.38 mile W. of Tippecanoe St. Use: Irrigation. Casing: 24 inches. Perforated 54 116; 119 137, 145 233; 255-279.	18033D	1,040	*303	1371	9/12/32	71.5	0.07	35	327	32	50	12	64	22	62
E 98y H 28	Mrs. A. Law, E. of Colton, 0.9 mile S. of Central Ave., 400 feet E. of Waterman Ave. Use: Irrigation. Casing: 12 inches. Gravel 135 250; 504 527; 694 730.	18022I	999	*730	(*)	4/20/31	31.4	0.10	42	155	9	21	-----	30	4	*31
E 98z H 28	Gage Canal Co., Well P, SE. of San Bernardino; 1700 feet N. of Colton Ave., 0.65 mile E. of Waterman Ave. Use: Irrigation. Perforated 340-405; 577-590; 609-640.	18033I	1,010	*040	(*)	6/13/31	51.5	0.09	37	226	25	41	15	52	11	*47
E 101b G 28	Gage Canal Co., Well 30-1, N. of Loma Linda; 500 feet S. of Central St., 900 feet E. of Tippecanoe Ave. Use: Irrigation. Casing: 24 inches. Gravel 74 174; 200 236; 248 300; 314 348; 380 400; 478 496; 538; 600 618; 636 644; 672 676; 682 700; 758 762; 768 808; 810 816; 820 822; 838 874; 907-911.	18041	1,055	*937	(*) 1374	1/15/31 9/12/32	32.6 24.2	0.02 0.16	41 21	146 119	7 2	23 9	----- 2	29 29	5 7	*29 13
E 101c G 28	Gage Canal Co., Well 31-1, SE. of San Bernardino; 750 feet E. of Tippecanoe Ave., 450 feet S. of Central St. Use: Irrigation. Casing: 24 inches. Perforated 100 144, 151 172, 190 232; 264 294; 328 340; 378 384; 392 402.	18041A	1,055	*422	1375	9/14/32	35.0	0.15	53	155	11	27	1	26	5	45
E 103 H 28	W. Henry Van Leuven, E. of Loma Linda; 20 feet W. of Mountain View Ave., 150 feet S. of intersection of Mountain View Ave. and Mission Road. Use: Irrigation.	18054	1,120	-----	(*)	4/ 4/30	79.1	0.04	39	366	43	58	-----	60	26	*75
E 103e H 28	College of Medical Evangelists, Kelley Well. Loma Linda, 1250 feet E. of Anderson St., 200 feet N. of Van Leuven St. Use: Domestic. Perforated 180 194; 198 208; 610 640; 696-754.	18044A	1,090	*754	1218	8/ 4/32	69.6	0.05	48	302	45	49	2	53	15	83
E 107L H 29	Allen Break and C. A. Puffer, Puffer Well. Bryn Mawr; 1900 feet E. of Mountain View Ave., 1200 feet N. of Barton Ave. Use: Irrigation. Casing: 14 inches. Gravel-packed well.	18064B	1,150	425	1220	8/ 5/32	85.5	0.09	41	336	57	78	22	65	27	86
E 109p G 29	Langford De Hart, De Hart Well, NW. of Redlands; 30 feet N. of Palmetto Ave., 50 feet W. of Alabama Ave. Use: Irrigation. Casing: 18 inches. Perforated 79 209.	18091E	1,220	*220	1224	8/ 5/32	41.3	0.03	15	183	9	29	22	56	11	14
E 1104 G 29	H. C. Emm, Fairview Well. NW. of Redlands; 265 feet N. of San Bernardino Ave., 642 feet W. of Alabama Ave. Use: Irrigation.	18082	1,215	300	(*)	May, 1919	-----	-----	21	177	12	22	2	48	7	*18
E 110e H 29	Mascart Water Co. NW. of Redlands; 640 feet E. of Alabama St., 670 feet N. of Luzonia Ave. Use: Irrigation.	18092	1,240	400	(*)	Oct., 1918	-----	-----	11	191	11	35	0	55	10	*10
E 110t H 29	Leigh Nickerson, W. of Redlands; 75 feet S. of A. T. & S. F. Ry. loop tracks, 50 feet W. of Nevada St., 30 feet S. of old well E-110a-H-29. Use: Irrigation. Casing: 20 inches. Perforated 294 298; 313 333; 366 454.	18083B	1,188	*467	1222	8/ 5/32	44.2	0.01	20	177	27	25	9	56	11	21
E 1114f H 29	City of Redlands, Texas St. Plant 1, Well 30. Redlands; 220 feet N. of Luzonia Ave., 180 feet W. of Texas St., S. well of three. Use: Municipal. Casing: 18 inches. Gravel 90 120; 129 237.	18102A	1,313	*237	1226	8/ 4/32	44.6	0.04	17	186	11	32	22	58	11	17
E 114 H 29	City of Redlands, Well 41. Redlands; 150 feet W. of Texas St., 50 feet S. of S. P. R. R. Use: Municipal. Casing: 20 inches. Perforated 150 442.	18104A	1,300	*474	1227	8/ 4/32	45.6	0.13	26	168	28	38	9	52	11	29
E 116 G 30	North Brae Water Co. N. of Redlands; 350 feet N. of San Bernardino Ave., 50 feet W. of Church St. Use: Irrigation. Casing: 20 inches. Perforated 184 386.	18122	1,390	*400	1228	8/ 6/32	38.4	0.01	13	177	7	27	16	54	10	12
E 123f H 31	East Luzonia Water Co., Well 5. Montone; 100 feet E. of Beryl Ave., 800 feet N. of Luzonia (Montone) Ave. Use: Domestic and irrigation. Casing: 29 inches. Perforated 116 183.	18172B	1,690	*318	1232	8/ 4/32	36.6	0.01	12	174	9	30	11	56	13	12



TABLE 16. WELLS IN SAN BERNARDINO AREA—Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
E-127c-H-31	Chas. T. Paine, Well 2, S. of Mentone; 0.23 mile S. of Colton Ave., 300 feet W. of King St. Use: Irrigation. Perforated 120-152, 157-178, 182-212, 218-228.	18173	1,710	*250	1233	8/ 5/32	40.2	0.02	19	13	23	11	46	17	20	
E-127f-H-31	McIntosh Estate, E. of Mentone; 1000 feet N. of Luzonía (Mentone) Ave., extended, on W. line of Greenspot Road. Use: Irrigation and domestic.	18192A	2,017	x-----	1234	8/ 4/32	40.4	0.03	10	7	27	7	57	15	10	
E-131f-G-31	Greenspot Mutual Well Co., NE. of Mentone; 2100 feet N. of Newport Ave., 150 feet W. of Peppers Road (private road). Use: Irrigation. Casing: 16 inches. Perforated 90-147.	18201	2,100	*x160	1236	8/ 4/32	34.2	0.03	12	11	21	7	47	11	11	
E-131g-G-31	Western Fruit Co., NE. of Mentone; 0.8 mile N. of Newport St., 100 feet W. of Peppers Road (private road). Use: Irrigation. Casing: 18 inches. Perforated 60-120; 125-152.	18200	2,100	*630	1235	8/ 4/32	36.0	0.03	18	9	30	2	45	12	17	
E-134-G-32	East Highland Orange Co., Sunrise Ranch Well 2, N. of Yucaipa; N. 16° E. from Southern California Edison power plant near Rainbow Angling Club on Mill Creek, N. 64° W. from intersection of 2d Ave. and Mill Creek Road. Use: Irrigation. Casing: 20 inches. Gravel 200-283, 329-445, 583-876, 845-1012.	18231	-----	*1,012	1239	8/ 4/32	32.2	0.01	15	4	21	0	42	11	12	
E-134a-G-32	East Highland Orange Co., Sunrise Ranch Well 1, N. of Yucaipa; N. 45° E. from power house near Rainbow Angling Club on Mill Creek, N. 64° W. from intersection of 2d Ave. and Mill Creek Road. Use: Irrigation. Casing: 20 inches.	18231A	2,580	*922	1240	8/ 4/32	33.5	0.07	15	2	32	1	42	11	12	

\* Low in files of Division of Water Resources.

x Water levels in files of Division of Water Resources.

a Includes small equivalent quantity of Carbonate (CO<sub>3</sub>).b Sulfate (SO<sub>4</sub>) determined by turbidity method.

c Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.

d Analysis by University of California, Graduate School of Tropical Agriculture and Citrus Experiment Station, Riverside, California.

e Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.

f Analysis by California State Department of Public Health, Bureau of Sanitary Engineering.

g Analysis by Edward S. Babcock and Sons, Riverside, California.



TABLE 17. WELLS IN CHINO AREA

Well number	Location and description.	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>-3</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-58b G-18	Base Line Water Co., Puddingstone Well 2, SW. of La Verne; 600 feet S. of Walnut Ave., 480 feet W. of right angle turn in Walnut Ave. Use: Irrigation. Casing: 20 inches. Perforated 120-234. U. S. D. A. analysis on 10-22-31 is duplicate of D. W. R. Lab. No. 478.	3210A	985	*x275	478 (1)	10/22/31 10/22/31	45.8 45.9	0.22 0.23	58 61	180 183	14 18	61 58	2 3	29 29	8 5	66 66
C-58c G-18	Bonita Water Co., La Verne; 50 feet S. of 6th St., 270 feet W. of D St. Use: Irrigation. Casing: 22 inches. Gravel produced well.	4430E	1,059	*x613	442	10/16/31	50.5	0.08	35	217	25	43	4	45	16	45
C-611 G-19	San Dimas Water Co., Yorba Well 1, S. of La Verne; 15 feet S. of La Verne Ave., 60 feet E. of Lincoln Ave. Use: Irrigation. Casing: 18 inches. Perforated 73-77; 109-131; 249-272; 293-327; 363-373.	3230	1,043	*x393	477	10/22/31	30.4	0.63	24	159	7	15	6	37	10	20
C-622a G-19	La Verne Water Co., La Verne Heights; 250 feet N. 13° W. from intersection of Base Line Ave. and Live Oak Canyon Road. Use: Irrigation. Casing: 18 inches. Perforated 248-277; 365-401; 418-432; 455-465; 490-496; 506-510.	4450E	1,285	*530	443	10/16/31	36.9	0.47	48	143	12	30	13	27	8	42
C-640e G-19	City of Pomona, Well 3, Pomona; 750 feet S. of La Verne Ave., 400 feet E. of Garey Ave. Use: Municipal. Casing: 14 inches. Perforated 116-142; 168-176; 312-316; 444-450; 480-492; 506-522; 640-662.	3241E	990	*x676	(c)	5/18/31				157	9	b20				
C-650j F-20	A. G. McKenna, N. of Claremont; 0.16 mile N. of Base Line Ave., 40 feet W. of Bonnie Brae Ave. Use: Irrigation. Casing: 20 inches. Gravel 709-730.	4487G	1,466	*767	444	10/16/31	32.6	0.08	22	174	2	24	2	43	8	18
C-663n G-19	H. H. Garner, Claremont; 85 feet S. of 10th St., 190 feet W. of Yale Ave. Use: Irrigation. Casing: 15 inches.	4489	1,228	*550	445	10/16/31	32.5	0.01	10	183	2	17	2	48	12	9
C-665 G-20	Del Monte Irrigation Co., Well 226, Claremont; 110 feet E. of College Ave., 56 feet S. of A. T. & S. F. Ry. East well of two. Use: Irrigation. Casing: 16 inches. Perforated 170-435. U. S. D. A. analysis on 10/22/31 is duplicate of D. W. R. Lab. No. 475.	3280J	1,150	*x450	475 (d)	10/22/31 10-22-31	26.9 26.9	0.06 0.03	54 51	143 150	5 5	15 13	2 2	22 24	4 2	38 34
C-667j G-19	City of Pomona, Well 1, Pomona; 580 feet N. of Aliso St., 240 feet W. of P. E. Ry., E. of Garey Ave. Use: Municipal. Casing: 16 inches. Perforated 90-790.	3241H	960	*x831	(e)	5/18/31				105	8	b15				
C-667j G-19	City of Pomona, Well 7, Pomona; 700 feet N. of La Verne Ave., 50 feet E. of Towne Ave. Use: Municipal. Casing: 14 inches. Gravel 223-233; 298-307; 364-369; 462-466; 482-513; 594-570; 581-624; 634-659; 670-682; 687-710.	3261C	980	*x734	(e)	5/18/31				146	12	b35				
C-667k G-19	City of Pomona, Well 8, Pomona; 1300 feet N. of La Verne Ave., 900 feet W. of Towne Ave. Use: Municipal. Gravel 107-222; 298-320; 329-335; 392-420; 431-477; 485-521; 523-525; 586-603; 623-654; 774-786; 792-807; 815-827.	3251E	1,017	*900	(1)	5/18/31				151	7	b34				
C-670s G-19	Pomona Irrigation Co., Pomona; 120 feet NE. of Willow St., 335 feet NW. of Orange Grove Ave. Use: Irrigation. Casing: 16 inches. Perforated 520-530; 575-594; 600-620. U. S. D. A. analysis on 10/22/31 is duplicate of D. W. R. Lab. No. 476.	3252J	952	*690	476 (1)	10/22/31 10/22/31	26.4 26.4	0.06 0.10	88 95	a137 a179	4 5	19 18	4 4	4 3	2 Tr.	62 62
C-673 H-19	East End Irrigation Co., Pomona; 25 feet S. of First St., 80 feet W. of East End Ave. Use: Irrigation.	3274	900	x455	473	10/22/31	38.4	0.02	12	177	9	18	22	53	13	12
D-701a F-20	City of Upland, Well 1, NW. of Upland; 0.24 mile W. of Mountain Ave., 30 feet S. of 26th St. Use: Municipal. Casing: Shaft Gravel 0-192.	4524A	2,160	*192	567	12/1/31	37.2	0.17	10	207	4	24	2	54	13	10
D-705c F-20	City of Upland, Well 5, NW. of Upland; 0.13 mile N. of 21st St., 0.13 mile E. of Mountain Ave. Use: Municipal. Casing: 24 inches. Perforated 230-400.	4535B	1,855	*x491	568	12/1/31	34.5	0.17	13	183	4	18	6	46	11	11
D-707 F-21	San Antonio Water Co., Well 15, Paul Well, N. of Upland; 50 feet S. of 23d St., 0.30 mile E. of Euclid Ave. Use: Irrigation. Casing: 12 inches. Gravel 200-278; 420-456; 508-523; 557-564; 608-620; 759-771; 773-804; 815-822; 836-878; 884-891; 893-895; 897-902; 906-911; 920-936; 942-994.	4555	1,836	*x1,000	(1) 447	8/26/29 10/16/31	30.7	0.01	10 13	177 171	4 4	22 14	Tr. 4	47 43	9 11	58 10
D-711 F-20	Enbeld Water Co., Well 1, W. of Upland; 130 feet W. of Benson Ave., 0.29 mile N. of Base Line Road. Use: Irrigation. Gravel 324-357; 581-590; 599-628; 633-653.	4517F	1,630	*x679	449	10/16/31	29.0	Tr.	55	146	4	28	1	21	6	42



TABLE 17. WELLS IN CHINO AREA (continued)

Well number	Location and description	Installation number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K <sub>2</sub> SO <sub>4</sub> at 25°C)	Boron ppm	Percent sodium (Na) + Mg (Ca+Mg)	Constituents (parts per million)				
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate photo radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)
D-711c-P-20	Euclid Water Co., Well 6, NW. of Upland; 0.38 mile W. of Benson Ave., 0.38 mile N. of Fresno Ave. Use: Irrigation. Casing: 20 inches. Perforated 275-325; 475-520; 550-620; 675-700.	4517D	1,650	*x762	450	10/16/31	33.3	0.03	-----	186	5	-----	-----	-----
D-710-G-21	City of Upland, Well 7, Upland; 0.10 mile W. of Campus Ave., 200 feet S. of 9th St. Use: Municipal. Casing: 24 inches. Perforated 44-80	17650	1,214	*x901	560	12/1/31	33.7	0.14	17	189	6	7	7	49
D-722c-G-20	Limited Mutual Water Co., Well 1, W. of Ontario; 60 feet S. of 8th St., 1200 feet E. of Central Ave. Use: Irrigation and domestic. Casing: 10 inches.	17610	1,182	x660	574	12/2/31	35.1	0.13	12	201	2	14	4	51
D-7224-G-20	Limited Mutual Water Co., Well 3, W. of Upland; 100 feet S. of 8th St., 0.22 mile E. of Central Ave. Use: Irrigation and domestic. Casing: 20 inches. Perforated 314-337; 334-452; 462-474; 486-500; 510-508; 598-618; 623-652; 659-664.	17610A	1,158	*x664	573	12/2/31	33.3	0.12	-----	189	0	-----	-----	-----
D-726b-H-21	City of Ontario, Well 2, E. of Ontario; 85 feet S. of 4th St., 300 feet E. of Cucamonga Ave. Use: Municipal. Casing: 16 inches.	17662A	1,064	x600	(*)	4/17/31	-----	-----	-----	199	10	120	-----	-----
D-726c-H-21	City of Ontario, Well 4, E. of Ontario; 90 feet S. of 4th St., 300 feet E. of Grove Ave. Use: Municipal. Casing: 20 inches. Gravel 298-320, 322-337, 376-410, 424-447, 452-464.	17672A	1,056	*x600	(*) 570	4/17/31 12/1/31	34.2	0.15	17	183 183	10 6	125 14	6	47
D-732-H-20	Ramona Mutual Irrigation Co., E. of Pomona; 30 feet S. of 5th St., 800 feet E. of Ramona Ave. Use: Irrigation. Casing: 14 inches. Gravel 246-270; 280-312; 363-370; 414-430. U. S. D. A. analysis on 10/22/31 is duplicate of D. W. R. Lab. No. 474.	3294A	1,070	*x441	474 (*)	10/22/31 10/22/31	34.8 34.7	0.03 0.11	10 27	186 195	7 7	17 11	7 2	53 53
D-735a-H-21	City of Ontario, Well 5, Ontario; 350 feet W. of Euclid Ave., 600 feet S. of Dessau Ave. Use: Municipal. Casing: 26 inches. Gravel 180-190, 201-280, 345-405, 411-445, 542-590, 642-652. Casing plugged at 507 feet.	17645	921	*x672	(*) 571	4/17/31 12/1/31	39.5	0.15	17	201 207	13 9	18 9	18	51
D-740a-H-20	City of Chino, Well 3, N. of Chino; 445 feet W. of Central Ave., 400 feet S. of Phillips Blvd. Use: Municipal. Casing: 16 inches. Perforated 230-243, 278-300, 330-344, 375-383; 393-396, 414-418, 428-435, 443-450.	17605	881	*x453	(*)	5/18/31	-----	-----	-----	190	9	18	-----	-----
D-740b-H-20	City of Chino, Well 1, N. of Chino; 75 feet S. of Phillips Blvd., 200 feet W. of Central Ave. Use: Municipal. Casing: 16 inches. Gravel 140-150; 230-250; 274-280; 306-374.	17615A	890	*x402	(*) 566	5/18/31 12/1/31	33.6	0.16	11	197 189	9 2	18 13	4	49
D-740b-H-20	City of Chino, Well 2, N. of Chino; 15 feet S. of Phillips Blvd., 610 feet W. of Central Ave. Use: Municipal. Casing: 16 inches. Perforated 228-266; 272-301; 322-325; 331-354	17605C	885	*x400	(*)	5/18/31	-----	-----	-----	195	12	110	-----	-----
D-744b-I-20	John Weiss, N. of Chino; 150 feet W. of Telephone Ave., 30 feet S. of Philadelphia Ave. Use: Domestic. Casing: 6 inches.	17606C	806	x175	505	12/1/31	42.3	0.22	18	217	13	13	10	53
D-747c-I-21	H. F. Brown et al., S. of Ontario; 600 feet S. of Walnut Ave., 800 feet E. of Euclid Ave. Use: Domestic and irrigation.	17657B	811	300	579	12/2/31	39.4	0.02	17	210	11	5	6	49
D-754L-I-19	B. B. Labaw, W. of Chino; 125 feet S. of Riverside Ave., 35 feet W. of East End Ave. Use: Domestic and irrigation. Casing: 12 inches. Perforated 140-151, 200-205, 238-245, 266-270. U. S. D. A. analysis on 10/22/31 is duplicate of D. W. R. Lab. No. 472.	3278I	738	*x273	472 (*)	10/22/31 10/22/31	33.8 34.0	0.06 0.06	18 16	186 192	5 7	16 12	4 3	46 47
D-759a-I-20	W. M. Freeman, S. of Chino; 135 feet S. of Shafter Ave., 95 feet W. of 12th Ave. Use: Domestic. Casing: 7 inches.	17610A	696	x300	564	12/1/31	30.1	0.20	-----	171	6	-----	-----	-----
D-759c-I-20	Gunn and Oathis, Chino; 0.25 mile E. of Central Ave., 0.25 mile S. of Shafter Ave. Use: Domestic and irrigation. Casing: 12 inches. Perforated 117-136; 203-230.	17619D	681	*x250	572	12/1/31	30.2	0.13	20	171	0	17	1	39
D-759d-I-20	Southern California Edison Co., Ltd., Chino; 100 feet N. of Edison Ave., 30 feet W. of Benson Ave. (15th St.). Use: Domestic and industrial. Perforated 100-100, 126-131.	16710A	670	*x202	1774	2/23/33	31.5	0.03	-----	171	2	-----	-----	-----
D-762-I-21	George Bird, E. of Chino; 90 feet S. of Shafter Ave., 0.36 mile E. of Euclid Ave. Use: Domestic.	17659	723	x-----	575	12/2/31	94.1	0.10	11	220	180	46	4	117



TABLE 17. WELLS IN CHINO AREA. Continued.

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific conductance (K x 10 <sup>3</sup> at 25 °C)	Boron ppm	Per cent sodium (Na + Mg + Ca)	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
D-762a-I-21	Earl Thomas, SE. of Chino; 150 feet S. of Edison Ave., 0.2 mile W. of Bon View Ave. Use: Irrigation and domestic. Casing: 14 inches. Gravel 14' 0", 14' 15", 14' 3' 10".	16750	695	*240	1779	2/23/33	38.7	0.04	20	198	9	12	9	46	13	19
D-762g-I-21	F. A. Halsey, E. of Chino; 150 feet S. of Shafter Ave., 0.30 mile W. of Bon View Ave. Use: Domestic. Casing: 6 inches.	17659B	720	80	576	12/2/31	57.2	0.13	14	281	28	17	8	76	19	21
D-768a-J-19	Joe Valprada, S. of Chino; 200 feet W. of Pipe Line Ave., 140 feet N. of Carbon Canyon Road (Merrill Ave). Use: Domestic and irrigation. Casing: 10 inches.	1681A	658	x85	1773	2/23/33	84.1	0.28	44	327	71	53	13	60	24	88
D-771e-J-20	Gilbert Kreamer, S. of Chino; 225 feet E. of Prado Road, 0.58 mile S. of intersection of Home Ranch Ave. and Prado Road. Use: Domestic and irrigation. Casing: 10 inches.	16713	584	x175	1775	2/23/33	32.8	0.04	24	174	4	20	0	38	11	21
D-772b-J-20	R. Robles and J. Yahiro, S. of Chino; 45 feet S. of Robles Ave., 45 feet W. of Magnolia Ave., extended. Use: Irrigation and domestic.	16723A	580	154	1776	2/23/33	30.9	0.04	25	168	2	17	6	37	10	21
D-775-J-21	J. F. Callett, SE. of Chino; 0.50 mile E. of Euclid Ave., 270 feet N. of Pine Ave. Use: Domestic. Casing: 7 inches.	16754	570	x140	1780	2/23/33	30.2	0.04	47	149	4	12	7	25	6	36
D-780a-K-20	Sonora Meredith, S. of Chino; 0.25 mile S. of Pine Ave., 350 feet W. of Prado Road. Use: Irrigation and domestic. Casing: 12 inches.	16735C	540	64	1777	2/23/33	104	0.14	37	336	57	186	11	110	35	72
D-781c-K-21	L. Richtenberger, S. of Chino; 65 feet E. of intersection of Prado Road and Pioneer Road. Use: Domestic and irrigation. Casing: 8 inches.	16746C	510	119	1778	2/23/33	71.7	0.08	26	265	28	114	5	78	22	46
D-782a-K-21	Owner unknown, W. of Norco; 350 feet N. of McCarty Ave., 4000 feet W. of Hellman Ave. Use: Domestic. Bailey No. 374A.	16776A	505	-----	( ) ( )	9/13/31 11/24/31	48 48	-----	54 55	198 186	18 21	43 27	-----	28 25	9 8	57 53
D-783a-K-21	Mike O'Neill, NW. of Prado; 0.5 mile E. of Prado Road along road 0.5 mile S. of Pioneer School, 100 feet S. of road, 200 feet E. of Chino Creek. Use: Domestic. Casing: 7 inches. Bailey No. 378B.	16767A	491	x-----	( ) ( ) ( )	9/13/31 10/5/31 11/24/31	134 118 116	-----	47 51	592 604	36 32 28	175 ----- 68	-----	87 ----- 71	39 29	155 142
D-783a-L-21	I. V. Ashcroft, SE. of Chino; 405 feet E. of Prado Road, 0.23 mile S. of Serrano Road. Use: Domestic and irrigation. Casing: 7 inches. Bailey No. 3719A.	15850A	471	x45	( ) ( ) ( )	9/13/31 11/24/31 10/5/31	73 70 72	-----	24 21	265 266	27 28 27	89 87 -----	-----	64 66 -----	25 26	35 34
D-789a-L-21	United States Geological Survey, Test Well D, NW. of Prado; 30 feet S. of Prado (Rincon) Road, 0.25 mile W. of the Santa Ana River, 0.25 mile E. of Chino Creek.	15860B	409	x-----	791	3/9/32	115	0.11	-----	360	53	-----	-----	-----	-----	-----
D-801c-K-21	McCarty Bros. W. of Norco; 0.4 mile S. of Chandler St., 100 feet W. of Hellman Ave. Use: Domestic. Casing: 6 inches.	16785B	566	x32	1782	2/23/33	58.2	0.08	33	265	32	30	3	58	16	48
D-802b-K-21	Chino Gun Club, W. of Norco; 3000 feet S. of McCarty Ave., 3400 feet E. of Serrano Road, 700 feet W. of Chino Gun Club Road. Use: Domestic. Bailey No. 379B.	16777A	500	-----	( ) ( ) ( )	9/23/31 10/5/31 12/19/31	63 64 65	-----	17 28	305 315	25 25 28	43 ----- 39	-----	79 73	19 15	25 43
D-802d-K-21	A. R. McCarty, W. of Norco; 150 feet S. of McCarty Ave., 1100 feet W. of Hellman Ave. Use: Domestic.	16786	545	45	1783	2/23/33	78.5	0.08	26	412	28	24	18	93	23	52
D-802e-K-21	McCarty Bros. W. of Norco; 0.47 mile W. of Hellman Ave., 300 feet S. of McCarty Ave. Use: Irrigation. Bailey No. 379C.	16787A	520	-----	( ) ( )	10/5/31 11/24/31	76 83	-----	-----	-----	32 32	-----	-----	-----	-----	-----
D-803-K-21	United States Geological Survey, Test Well E-1, N. of Prado; 2400 feet E. of Serrano Road from turn, 2700 feet SE. of Chino Gun Club Road, 1000 feet N. of Santa Ana River. Use: U. S. G. S. Recorder Well. Casing: 14' dug well.	16779B	480	4	1381	9/15/32	68.4	0.26	-----	329	43	-----	-----	-----	-----	-----
D-803a-K-21	United States Geological Survey, Test Well E-2, N. of Prado; 2400 feet E. of Serrano Road from turn, 3200 feet SE. of Chino Gun Club Road, 600 feet SE. of U. S. G. S. Well E-1. Use: U. S. G. S. Recorder Well. Casing: 4' x 4' dug well.	16779C	480	6	1382	9/15/32	100	0.21	-----	357	119	-----	-----	-----	-----	-----
D-803b-K-21	United States Geological Survey, Test Well E-3, N. of Prado; 30 feet N. of edge of active channel of Santa Ana River, 500 feet downstream from intersection of Yorba St., extended.	16779D	475	8	1383	9/15/32	184	0.48	-----	503	320	-----	-----	-----	-----	-----



TABLE 17. WELLS IN CHINO AREA—Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance of K <sub>2</sub> SO <sub>4</sub> solution at 25°C	Boron ppm	Per cent sodium (Na x 100) (Ca + Mg + Na)	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
D-812-K-22	McCarthy Bros., Well 2, W. of Norco; 40 feet N. of McCarthy Ave. (Chino-Corona Blvd.), 640 feet E. of Holman Ave. Use: Irrigation. Casing: 16 inches. Bailey No. 373B.	16796	562	x310	(1)	9/22/31	38				18					
D-813-K-22	J. T. Hamner, W. of Norco; 600 feet E. of Archibald Ave., 3900 feet S. of Chandler Ave. on east line of private drive. Use: Domestic. Casing: 7 inches. Bailey No. 372B.	16816	546	x	(1)	9/22/31	43.		17	214	18	16		53	11	417
					(1)	10/5/31	43.				18					
					(1)	11/24/31	50.		21	247	21	18		56	14	24
					1786	2/23/33	44.2	0.02	22	232	14	8	10	54	13	25
D-904b-J-21	C. T. Merrill, SE. of Chino; 30 feet W. of Walker Ave., 300 feet S. of Merrill Ave. Use: Irrigation and domestic. Casing: 14 inches.	16781	657	x207	1781	2/23/33	61.4	0.04	17	332	14	12	27	76	24	28
D-909a-J-22	John Imbach, NW. of Norco; 180 feet W. of Archibald Ave., 10 feet S. of Cloverdale Road, extended. Use: Irrigation and domestic. Casing: 16 inches.	16802	643	x310	1784	2/21/33	89.5	0.04		363	78					
D-909d-J-22	John Imbach, NW. of Norco; 230 feet W. of Archibald Ave., 10 feet S. of Cloverdale Road, extended, 50 feet W. of Well D 909a J 22. Use: Domestic.	16802A	642	310	1785	2/21/33	89.9	0.05	15	375	77	44	8	111	33	34
D-910c-I-22	E. B. Covington, E. of Chino; 0.55 mile S. of Chino Ave., 0.2 mile W. of Archibald Ave. Use: Domestic. Casing: 16 inches. Gravel 94 106, 118 130, 266 270, 299 298, 310 342, 334 362, 378 384, 398 424	17709A	726	*436	477	12/2/31	33.1	0.12	23	183	4	13	4	40	10	19
D-911f-I-22	George Buccola, E. of Chino; 120 feet S. of Chino Ave., 0.4 mile W. of Archibald Ave. Use: Domestic.	17608E	752			580	12/2/31	54.0	0.17	15	195	39	14	18	63	18
D-918d-J-22	Bert Gratzinger, N. of Norco; 400 feet N. of Citrus St., 0.15 mile W. of Summer Ave. Use: Irrigation and domestic. Casing: 12 inches.	16824B	600	x196	1787	2/21/33	69.8	0.02	23	314	45	29	13	79	20	38
D-921b-J-22	Wm. Poulson, N. of Norco; 150 feet W. of Cleveland Ave., 2400 feet N. of Cloverdale Road. Use: Irrigation and domestic.	16831A	675	500	1789	2/21/33	19.8	0.02	42	*94	6	6	0	11	7	20
D-925-I-23	A. T. Galloway (formerly Mrs. M. L. Johnson), SE. of Ontario; 300 feet N. of Riverside Blvd., 1000 feet E. of Adams Ave. Use: Domestic.	17746A	798	175	508	11/13/31	38.2	0.04	27	180	23	6	9	43	12	26
D-927b-I-23	John Knauss, N. of Norco; 0.51 mile N. of Belle Grove Ave., 0.45 mile E. of Adams Ave. Use: Irrigation and domestic. Casing: 12 inches. Perforated 78 80, 156 238, 240 278, 280-336.	16850C	725	*300	1790	2/21/33	36.7	0.02	23	189	9	6	8	49	7	21
D-932-J-23	A. Luckkern, NE. of Norco; 225 feet S. of Olive St. (River Road), 0.45 mile E. of Wineville Ave. Use: Irrigation. Casing: 14 inches. Gravel 18 23, 78 182.	16863	607	*x202	1792	2/23/33	21.9	0.01	42	*95	11	9	Tr.	19	5	23
D-934-I-23	C. N. Marietta, NE. of Norco; 600 feet E. of Wineville Ave., 130 feet N. of Belle Grove Ave. Use: Domestic. Casing: 7 inches.	16860	714	x104	1791	2/2/33	71.5	0.02	18	186	98	34	8	98	10	29
D-935a-I-23	H. H. Kuhlman and A. W. Church, E. of Chino; 300 feet W. of Etiwanda Ave., 0.28 mile N. of Belle Grove Ave. Use: Irrigation and domestic. Casing: 12 inches.	17779	762	x400	497	11/12/31	35.3	0.08	26	168	18	14	6	45	6	23
D-935b-I-23	Chas. E. Faulhaber, E. of Chino; 115 feet W. of Etiwanda Ave., 405 feet S. of Riverside Ave. Use: Domestic. Casing: 7 inches.	17778A	785	x140	502	11/12/31	41.1	0.03		180	20					
D-936-I-23	Chas. Stern and Sons, S. of Etiwanda; 180 feet W. of Etiwanda Ave., 78 feet S. of County Line Road. Use: Irrigation and domestic. Casing: 20 inches. Gravel 150 162, 194 290, 296 210; 230-245; 288-370; 376-389; 405-420.	17776	845	*x438	498	11/12/31	32.1	0.04	24	177	7	12	4	43	7	20
D-938-I-23	Santa Ana River Water Co., NE. of Norco; 250 feet N. of Weller St., 270 feet E. of Marlin Ave., 850 feet S. of Belle Grove Ave. Use: Irrigation and domestic. Casing: 16 inches.	16880A	727	x250	1793	2/27/33	43.0	0.01	24	174	32	10	5	56	7	24
D-940a-J-23	Santa Ana River Water Co., NE. of Norco; 75 feet S. of Malachite St., 0.70 mile E. of Etiwanda Ave. Use: Irrigation and domestic. Casing: 10 inches.	16880C	689	x200	1794	2/23/33	56.2	0.06	30	159	60	34	5	64	7	3
D-952-I-24	Jurupa Heights Water Co., Well 1, W. of Peckley; 50 feet S. of Limestone Ave., 0.61 mile W. of Carpet St. Use: Irrigation and domestic. Casing: 16 inches. Gravel 97 109 101 113.	16912	690	*114	1795	2/21/33	57.9	0.21	43	134	77	36	8	36	16	53



TABLE 17. WELLS IN CHINO AREA—Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca+Mg+Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
D-952a-J-24	Jurupa Heights Water Co., Well 2, N. of Padley; 110 feet S. of Padley St., 50 feet E. of U. P. R. R. Use: Irrigation and domestic.	16921	730	x120	1796	2/21/33	76.1	0.16	35	201	84	58	13	56	26	62
D-959-I-24	J. C. Coile, NW. of Riverside; 300 feet E. of Acate St., 150 feet S. of Mission Blvd. Use: Domestic. Casing: 6 inches.	17828	796	x36	496	11/12/31	67.2	0.22	30	339	23	56	8	52	36	54
D-968a-J-25	Mr. McIntosh, W. of Riverside; 400 feet SE. of Riverview Drive, 0.45 miles SW. of Limonite Ave., 1200 feet NE. of U. P. R. R. Use: Irrigation and domestic.	16962A	728	x-----	1798	2/27/33	67.7	0.11	21	354	16	47	2	84	22	38
D-968b-J-25	City of Riverside, W. of Riverside; 0.53 mile SE. of Riverview Drive, 0.38 mile S. of Sewer Farm Road, which is 1.5 miles SW. of Mission Blvd. Use: Domestic. Casing: 3 inches.	16972	735	46	1799	2/27/33	95.9	0.14	31	387	87	56	Tr.	102	25	73
D-971a-I-25	A. B. Long, West Riverside; 150 feet N. of Mission Blvd., 100 feet W. of Opal Ave. Use: Domestic. Casing: 6 inches.	17879A	865	96	501	11/12/31	79.4	0.14	-----	326	48	-----	-----	-----	-----	-----
D-975a-I-25	E. K. Smith, West Riverside; 200 feet SE. of A St., 0.2 mile NE. of Wilson St., 1500 feet SW. of First St. Use: Domestic.	17899D	816	x70	495	11/12/31	87.2	0.19	33	357	59	82	9	81	30	73
D-975d-I-25	W. S. Pitney, West Riverside; 0.25 mile SE. of Riverview Drive, 0.6 mile SW. of intersection of Riverview Drive and Mission Blvd. Use: Domestic. Casing: 3 x 3-inch well.	16980A	770	x23	1800	2/27/33	129	0.22	32	418	156	74	13	112	43	97
D-984a-I-26	Riverside Cement Co., Mine Sump Drift, NW. of Riverside; 1500 feet E. of Crestmore Road (A St.), 1200 feet NW. of Canal St. Use: Industrial. Flow 110 mds. Top of sump is elevation 643 feet. Owner believes water rises through limestone fissures from great depth.	17917D	900	267	924	4/28/32	62.2	0.02	23	174	89	27	7	73	14	31
D-1001b-G-21	Cucamonga Water Co., Well 6, E. of Upland; 0.11 mile S. of Base Line Ave., 195 feet W. of Cornelian St. Use: Irrigation. Casing: 12 inches.	4857J	1,420	x365	608	12/16/31	27.9	0.01	22	143	6	16	4	34	10	16
D-1002b-G-21	Arrow Route Water Co., E. of Ontario; 650 feet W. of Vineyard Ave., 106 feet S. of Arrow Highway. Use: Irrigation. Casing: 10 inches. Perforated 375, 428, 438, 491, 510, 517, 530, 536; 590-630; 651-670; 674-700; 722-728.	17680	1,164	*x745	563	12/1/31	35.1	0.19	-----	189	6	-----	-----	-----	-----	-----
D-1007a-H-22	Ralph Weiler, SE. of Ontario; 140 feet E. of Vineyard Ave., 85 feet S. of Francis St. Use: Irrigation and domestic.	17685	866	x-----	578	12/2/31	36.3	0.12	18	183	11	13	7	44	12	16
D-1012a-G-22	Old Settlers Water Co., Well 1, S. of Alta Loma; 1330 feet S. of Base Line Ave., 680 feet W. of Archibald Ave., 20 feet S., 20 feet W. from NE. corner of Lot 7, Cucamonga Fruit Lands. Use: Irrigation. Casing: 6 inches.	18508	1,322	x448	(d)	8/5/31	36.8	Tr.	18	201	7	21	9	47	12	16
D-1016-H-22	Mr. Signorio, N. of Guasti; 675 feet S. of 4th St. (San Bernardino Ave.), 0.24 mile E. of Archibald Ave. Use: Irrigation at 1400 mds. Casing: 10 inches. Gravel 254-284, 406-553, 572-601, 609-625.	17712	1,016	*x507	500	11/12/31	37.3	0.02	19	207	9	7	9	49	12	19
D-1024-G-22	Mission Vineyard Co., NW. of Etiwanda; 30 feet S. of Base Line Ave., 0.86 mile W. of Orange St., 0.94 mile E. of Haven Ave. Use: Irrigation. Casing: 20 inches. Gravel 522-525, 540-555, 597-599, 750-762, 780-783, 925, 964.	18547A	1,331	*x964	1430	9/23/32	35.8	0.01	13	186	4	11	1	55	9	12
D-1029a-H-23	Naudo Miglietta (formerly Mrs. M. S. Spadley), E. of Guasti; 0.35 mile E. of Orange St., 845 feet S. of S. P. R. R. Use: Domestic. Casing: 7 inches.	1775J	974	x280	499	11/12/31	39.5	0.03	30	207	18	6	6	42	11	39
D-1042a-H-23	S. S. Swanson, S. of Etiwanda; 0.4 mile N. of Marley Ave., 0.57 mile E. of Etiwanda Ave. Use: Domestic. Casing: 10 inches.	1785A	910	x146	503	11/12/31	39.8	0.06	-----	192	27	-----	-----	-----	-----	-----
D-1050-G-24	Fontana Union Water Co., F. U. Well 17, E. of Etiwanda; 75 feet E. of Cherry Ave., 110 feet S. of A. T. & S. F. R. R., 500 feet N. of Merrill Ave. Use: Irrigation. Casing: 20 inches. Gravel 1380-406, 410-418, 450-600, 606-674, 480-490, 498-602, 680-712.	17810	1,165	*x845	505	11/13/31	35.5	0.08	19	192	9	5	6	50	8	17
D-1056a-H-24	Fontana Union Water Co., F. U. Well 5, SW. of Fontana; 30 feet S. of Sower Ave., 50 feet W. of Poplar Ave. Use: Irrigation. Casing: 10 inches. Gravel 230-270, 418-440, 520-540; 560-586.	17853	1,052	*x854	506	11/13/31	33.8	0.01	21	174	9	12	6	49	7	18



TABLE 17. WELLS IN CHINO AREA—Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>-3</sup> at 25°C)	Boron ppm	Per cent sodium (Na + Mg)	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
D 1001 G-25	Fontana Union Water Co., F. U. Well 31. W. of Rialto; 40 feet S. of Base Line Ave., 310 feet E. of Citrus Ave. Use: Irrigation and domestic. Casing: 20 inches. Perforated 640-761.	18047	1,306	*x761	604	12 15 31	33.2	0.02	22	201	9	3	3	46	7	19
D 1002 G-25	Fontana Union Water Co., New U. Well 11. Fontana, 100 feet S. of A. T. & S. F. Ry., 40 feet E. of Juniper Ave. Use: Domestic and irrigation. Casing: 20 inches. Perforated 700-837.	17550	1,217	*x872	509	11/13/31	31.4	0.06		180	5					
D 1004a H-25	Fontana Union Water Co., F. U. Well 15. S. of Fontana; 30 feet S. of San Bernardino Ave., 0.13 mile W. of Magnolia Ave. Use: Irrigation. Casing: 20 inches. Gravel 318-322, 388-430, 444-464, 484-496, 500-546, 554-590, 596-630, 638-646; 650-680.	17802	1,156	*x808	510	11/13/31	33.4	0.03		180	7					
D 1072a G-25	Fontana Union Water Co., F. U. Well 23. W. of Rialto; 55 feet S. of Base Line Ave., 634 feet W. of Alder Ave. Use: Irrigation and domestic. Gravel 200-304; 328-346; 364-398; 402-480; 510-543.	18677A	1,409	*x543	605	12 15 31	31.8	0.11	13	183	6	9	2	50	8	11
D 1073 G-25	West Rialto Water Co., Well 1. W. of Rialto; 425 feet W. of Laurel Ave., 716 feet S. of Base Line Ave., 30 feet S. of Well 2. Use: Irrigation.	18688	1,300	x536	1432	9 23 32	31.1	0.01	13	174	2	7	1	46	9	10
D 1075 G-25	Fontana Union Water Co., F. U. Well 12. N. of Bloomington; 75 feet S. of Randall Ave., 400 feet W. of Linden Ave. Use: Irrigation. Casing: 16 inches. Gravel 319-376; 465-468, 545-548; 635-637.	17901	1,178	*x734	511	11/13/31	41.7	0.02		207	20					
D 1075a G-25	Fontana Union Water Co., F. U. Well 28. E. of Fontana; 45 feet S. of Merrill Ave., 265 feet W. of Locust Ave. Use: Irrigation. Casing: 20 inches. Perforated 304-386; 380-388, 410-420, 472-490. U. S. D. A. analysis on 11 13 31 is duplicate of D. W. R. Lab. No. 507.	17880	1,227	*x531	507 (4)	11/13/31 11/13/31	44.5 46.3	0.17 0.16	21 24	223 220	23 21	12 11	9 16	57 57	13 9	24 25
D 1075b H-26	Crestmore Ranch. S. of Bloomington; 425 feet E. of Linden Ave., 180 feet S. of Jurupa Ave. Use: Irrigation and domestic.	17905	997		504	11/13/31	44.3	0.03	18	195	25	19	9	63	10	20
D 1082 G-26	American States Water Service Co., Well 1. NE. of Bloomington, 700 feet N. of Randall Ave., 40 feet E. of Larch Ave. Use: Municipal. Casing: 16 inches. Perforated 228-230, 254-280, 290-307, 328-336, 485-500, 575-602.	17901	1,180	*620	610	12 17 31	38.7	0.02	17	189	18	9	8	56	9	17
D 1085 G-26	Lytle Creek Water and Improvement Co., Willow St. Well. Rialto; 1800 feet N. of Footfall Blvd., 200 feet E. of Willow Ave. Use: Irrigation. Gravel 107-250, 252-256, 260-284, 284-290, 310-370, 380-482, 488-492, 414-430, 436-480, 618-632, 684-748; 782-787.	18728	1,297	*x28	1312	9/ 2/32	31.8	0.01	15	180	4	2	1	48	8	12
D 1091a H-26	Jurupa Water Co., Plant 1. SW. of Colton; 2810 feet S. and 310 feet W. of the center of Sec. 25, T. 1 S., R. 5 W., S. B. B. & M., 150 feet N. of Aqua Mansa Road. Use: Irrigation. Casing: 12 inches.	17943B	900	300	(*)	Sept. 1918			5	185	9	18	6	45	19	24
D 1092b H-26	Twin Buttes Water Co., Plant 6. SW. of Colton; 1310 feet S. and 800 feet W. of the E. 1/4 corner, Sec. 25, T. 1 S., R. 4 W., S. B. B. & M., 50 feet N. of Aqua Mansa Road. Use: Irrigation.	17944	875	*275	(*) (*)	1/28/20 8/ 5/20			35 11	256 183	252 17	94 46	1	120 63	32 10	106 11
D 1092b H-26	Jurupa Water Co., Plant 1 1/2. SW. of Colton; 2490 feet S. and 20 feet W. of the center of Sec. 25, T. 1 S., R. 5 W., S. B. B. & M., 100 feet N. of Aqua Mansa Road. Use: Irrigation. Casing: 12 inches.	17945	900	150	(*)	Sept. 1918			38	185	9	17	7	32	10	34
D 1105 F-21	San Antonio Water Co. (formerly), Plant 13, Rex Well. E. of Upland; 25 feet W. of Cornelian St., 70 feet N. of Orange St. Use: Irrigation. Casing: 16 inches.	458b	1,648	x575	(*)	Nov. 1918			35	400	9	13	9	21	6	219
D 1100a F-22	Upland Water Co., NE. of Upland; 1360 feet E. of Cornelian St., 103 feet S. of 19th St. Use: Irrigation. Perforated 273-282, 297-306, 321-324, 326-345, 347-363, 369-418, 439-449; 474-489; 604-686.	458D	1,542	*x702	448	10/16/31	38.9	Tr	22	174	9	42	7	42	15	21
D 1106 F-21	San Antonio Water Co., Well 3. E. of Upland; 440 feet S. of 17th St., 1250 feet E. of Cucamonga Ave., 635 feet E. and 190 feet N. of SW. corner of Lot 383, Ontario Colony Lands. Use: Irrigation. Casing: 12 inches.	4577C	1,490	*x928	(*) (*)	Nov. 1918 8 26 20			16 16	458 168	8 5	17 16	4 1	38 46	12 9	213 213



TABLE 17. WELLS IN CHINO AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific gravity (K x 10 <sup>-3</sup> at 25°C)	Boron ppm	Per cent sodium (Ca + Mg + Na)	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	
D 1107 F 22	Cucamonga Water Co., Well 2, E. of Upland; 925 feet N. of Base Line Ave., 500 feet E. of Vineyard Ave. Use: Irrigation and domestic. Casing: 174-212, 218-240, 240-255, 474-502, 509-538.	4597	1,465	*578	609	12/16/31	42.5	0.01	30	177	9	61	4	45	13	33
D 1107m F 22	Foothill Irrigation Co., Well 1, E. of Upland; 100 feet S. of Highland Ave., 450 feet W. of Archibald Ave. Use: Irrigation. Casing: 212-224, 224-250.	18506H	1,498	*572	(*)	Oct., 1918			9	174	12	25	0	43	17	8
D 1107a F 22	Citrus Water Co., Well 1, N. of Alta Loma; 120 feet S. of 50 feet E. of Amethyst Ave. Use: Irrigation and domestic. Casing: 32-140 inches.	18506b	1,492	5500	607	12/16/31	37.4	0.08	30	171	6	36	2	44	9	30
D 1108d F 22	Foothill Irrigation Co., Well 5, N. of Alta Loma; 600 feet N. of Highland Ave., 20 feet E. of Amethyst St. Use: Irrigation. Casing: 20 inches. Perforated 288-646; 660-740; 820-867, 968-991.	18506f	1,572	*1,410	457	11/9/31	39.9	0.06	30	183	5	42	4	42	12	31
D 1110a F 22	Schwalder Mutual Water Co., Well 2, NE. of Alta Loma; 0.2 mile E. of Turner (Hermosa) Ave., 20 feet N. of Adams St. Use: Irrigation and domestic. Casing: 20 inches. Perforated 263-472, 462-496, 515-533, 605-620, 623-642.	18514	1,800	750	613	12/17/31	30.0	Tr.	15	180	6	11	1	43	10	13
D 1110b F 22	Schwalder Mutual Water Co., Well 1, NE. of Alta Loma; 0.1 mile E. of Hermosa Ave. (Turner Ave.), 0.24 mile N. of Adams St. Use: Irrigation and domestic. Casing: 16 inches. Gravel: 330-375, 390-420, 420-452, 480-505, 644-588.	18514A	1,945	*618	612	12/17/31	30.1	0.02	15	174	7	13	1	42	10	13
D 1117 F 22	Foothill Irrigation Co., Well 2, E. of Upland; 100 feet S. of Lemon St., 50 feet E. of Archibald Ave. Use: Irrigation and domestic.	18505	1,588	5500	(*)	Oct., 1918			48	156	12	13	0	4	8	18
D 1118 F 22	Foothill Irrigation Co., Well 3, E. of Upland; 20 feet E. of Archibald Ave., 25 feet N. of 19th St. Use: Not used, formerly irrigation.	18506D	1,491	5500	(*)	Oct., 1918			25	168	9	17	30	38	9	20
D 1153 F 24	John Eberich, NW. of Fontana; 450 feet E. of San Severn Road (Lay Oak Ave.), 0.45 mile N. of Highland Ave. Use: Domestic. Dog well.	18625	1,442	300	611 1429	12/17/31 9/23/32	30.1 34.2	0.04 0.04	14 14	192 192	6 7	2 7	1 7	47 48	9 9	11 12
D 1156a F 24	T. S. N. Malool, NW. of Fontana; 0.26 mile N. of Highland Ave., 0.49 mile E. of Lytle Creek Road, 40 feet N. of Hollywood Ave., 50 feet W. of Boston Ave. Use: Domestic. Casing: 16 inches. Perforated 695-778; 792-819; 853-893.	18645	1,557	*5915	603	12/15/31	34.8	0.05	19	207	7	4	4	47	10	17
D 1164 L 25	Fontana Union Water Co., F. U. Well 27, Intake Well, NW. of San Bernardino; 150 feet NE. of Lytle Creek Canyon Road, 1.26 miles NW. from Cajon Creek Road in Lytle Creek Canyon. Use: Domestic. Casing: 20 inches. Perforated 635-660.	19459	2,244	5113	1305	9/2/32	29.2	0.02	12	156	2	20	1	41	12	10
D 1170a F 25	Fontana Union Water Co., F. U. Well 19, N. of Fontana; 300 feet SW. of Riverside Ave., 1.82 miles NW. of Linden Ave. Use: Domestic. Casing: 20 inches. Perforated 80-120, 170-208, 212-224.	18672	1,853	*325	606	12/15/31	30.5	0.09	13	186	6	7	0	44	10	11
D 1175a F 25	W. B. Brazelton, NE. of Fontana; 0.36 mile N. of Highland Ave., 50 feet W. of Linden Ave. Use: Irrigation. Casing: 16 inches. Perforated 440-495; 530-555; 608-623; 690-706; 729-739, 750-773.	18695	1,501	*5779	1431	9/23/32	31.0	0.06	13	171	4	10	1	42	10	10
D 1181a F 26	Fontana Union Water Co., F. U. Well 25, or T. & M. Well 1, NW. of San Bernardino; 0.38 mile NE. of Riverside Ave. from point 0.15 mile NW. of Fontana power house. Use: Irrigation and domestic. Casing: 20 inches. Gravel 205-718.	18703A	1,597	*2718	619	1/5/32	28.0	0.04	16	159	0	15	1	40	6	11
D 1181c F 26	Fontana Union Water Co., F. U. Well 24, or T. & M. Well 2, NW. of San Bernardino; 0.23 mile NE. of Riverside Ave. from point 0.25 mile SE. of Fontana power house. Second well in pit, 100 feet from D-1181d-F-26. Use: Irrigation. Casing: 20 inches. Gravel 208-764.	18704C	1,566	*407	1320	9/2/32	30.9	0.12	12	168	4	21	1	46	10	10
D 187-H-27	Riverside Water Co., Plant 1, S. of Colton; 750 feet S. of East N St., 350 feet W. of Mt. Vernon Ave., 40 feet E. of Riverside Ave. Use: Irrigation. Casing: 20 inches. Perforated 43-70; 83-97; 131-169.	17984	945	*189	(*)	8/1/30					23					



TABLE 17. WELLS IN CHINO AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance ( $K \times 10^6$ at 25°C)	Boron ppm	Per cent sodium $Na \times 100$ $Ca + Mg + Na$	Constituents (parts per million)				
										Bicarbonate radicle ( $HCO_3$ )	Chloride radicle (Cl)	Sulfate radicle ( $SO_4$ )	Nitrate radicle ( $NO_3$ )	Calcium (Ca)
E-87a-H-27	Riverside Water Co., Plant 2, S. of Colton; 1350 feet S. of East N St., 800 feet W. of Mt. Vernon Ave., 20 feet E. of Riverside Water Co.'s wooden flume across Santa Ana River, 60 feet S. of north end of flume. Use: Irrigation. Casing: 20 inches. Perforated 100-24", 290-354.	17984A	925	*403	(#)	8/ 1/30	.....	.....	.....	.....	30			

\* Log in files of Division of Water Resources.

x Water levels in files of Division of Water Resources.

a Includes small equivalent quantity of Carbonate ( $CO_3$ ).b Sulfate ( $SO_4$ ) determined by turbidity method.

c Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.

d Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.

e Analysis by California State Department of Public Health, Bureau of Sanitary Engineering.

f Analysis by Chabrey Junior College, Ontario, California.

g Analysis by University of California, Graduate School of Tropical Agriculture and Citrus Experiment Station, Riverside, California.

h Analysis by Edward S. Babcock and Sons, Riverside, California.

i Analysis by Edward S. Babcock and Sons, Riverside, California.

j Data from Case No. 22946, Corona Football Lemon Co., a Corp., vs. C. E. Lillard &amp; Co., et al., in the Superior Court of the State of California, in and for the County of Riverside.



TABLE 18. WELLS IN RIVERSIDE AREA

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>4</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)							
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	
E-68-I-26	Elliot Springs, NE. of Riverside; 380 feet SE. of Main St., 140 feet NE. of Strong St. Use: Swimming pool supply.	17939C	-----	375	(c)	6/6/30	51.0	0.70	90	107	96	54	-----	5	3	115	
E-69-I-26	Riverside Water Co., Spanish Town Well, NE. of Riverside; 135 feet N. of Chase Road, extended 130 feet W. of Orange St. At edge of Santa Ana River bottom. Use: Irrigation.	1794S	835	x-----	(d)	Feb., 1920	-----	-----	28	220	18	43	3	53	12	132	
E-69a-I-26	City of Riverside, Russell Well, NE. of Riverside; 270 feet NW. of Orange St., 60 feet NE. of Placentia Lane. Use: Municipal. Casing: 20 inches. Perforated 67-323.	1794SA	640	*353	(c)	8/13/31	34.4	Tr.	36	207	6	17	3	39	7	133	
E-74-I-27	Joe Trullio, NE. of Riverside; 0.25 mile NE. of Chase Road, 0.13 mile SW. of La Cadena Ave., 75 feet N. of Riverside Water Co. Canal. Use: Domestic. Casing: 6 inches.	1795SD	882	x80	1211 1370 1447 1496	7/28/32 9/1/32 4/19/28 10/31/32	53.8 54.3 54.3 53.9	0.12 0.12 0.13 0.16	27 27 ----- 27	235 229 235 232	27 21 21 21	43 48 43 -----	6 ----- 7 -----	61 60 60 -----	15 14 14 -----	36 34 36 -----	
E-74d-I-27	Riverside Water Co., Highgrove pump, NE. of Riverside; 800 feet S. of Villa St., 1000 feet W. of Iowa Ave., 35 feet N. of Riverside Water Co. Canal. Use: Irrigation. Casing: 20 inches. Perforated 40-94; 104-134; 150-190; 228-240; 324-334; 370-390.	1795S	890	*402	(d) (d)	Mar., 1929 8/1/30	-----	-----	-----	340	60	-----	-----	-----	-----	-----	-----
E-74e-I-27	Riverside Water Co., Palmvita Well, NE. of Riverside; 85 feet SE. of La Cadena Drive, 375 feet NE. of Oxford St., 38 feet NW. of Riverside Water Co. canal. Use: Irrigation. Gravel 38-42, 69-72, 80-83, 88-123, 128-130, 147-160, 175-180, 190-200, 251-263, 330-335.	17959	885	*393	(d)	8/1/30	-----	-----	-----	-----	51	-----	-----	-----	-----	-----	-----
E-74e-I-27	University of California, Highgrove Well, N. of Highgrove; 390 feet S. of County Line Road, 190 feet E. of S. P. R. R. main line into Highgrove, 70 feet E. of east R. R. property line. Use: Irrigation. Perforated 135-320.	1796S	957	*320	(d) (d) (d) (c) (c)	Jan., 1919 4/19/28 8/15/28 3/5/31 4/18/31	----- ----- 68.1 73.4	----- ----- 0.08 0.04	32 26 33 28 31	235 271 268 268 268	31 41 42 50 52	41 53 54 54 52	4 ----- ----- ----- 13	64 54 46 73 77	10 28 23 16 17	144 40 50 45 55	
E-76a-H-27	La Sierra Water Co., Well 1, S. of Colton; 600 feet S. of the intersection of S. 3d St. and La Cadena Drive, 250 feet E. of La Cadena Drive. Use: Irrigation. Casing: 16 inches. Perforated 50-171.	1796SA	899	*194	(d) (c)	Sept., 1918 8/5/29	-----	-----	19 15	225 225	20 25	36 55	5 -----	65 73	13 13	24 19	
E-76b-H-27	La Sierra Water Co., Well 6, S. of Colton; 730 feet S. of the intersection of S. 3d St. and La Cadena Drive, 310 feet E. of La Cadena Drive. Use: Irrigation. Casing: 16 inches. Gravel 0-200	1796SB	900	*200	(d)	2/25/20	-----	-----	46	284	156	85	3	100	10	116	
E-76c-H-27	La Sierra Water Co., Well 2, S. of Colton; 900 feet S. of the intersection of S. 3d St. and La Cadena Drive, 300 feet E. of La Cadena Drive. Use: Irrigation. Casing: 16 inches. Gravel 0-150.	1796SC	903	*170	(d)	Sept., 1918	-----	-----	29	235	18	24	5	57	16	130	
E-76d-H-27	La Sierra Water Co., Well 5, S. of Colton; 770 feet S. of the intersection of S. 3d St. and La Cadena Drive, 670 feet E. of La Cadena Drive. Use: Irrigation. Casing: 16 inches. Perforated 50-158; 170-186.	1796SD	900	*191	(d) 303	1/28/20 9/15/31	----- 60.8	0.07	25 35	244 229	246 18	80 62	1 10	126 65	35 19	170 37	
E-76e-H-27	La Sierra Water Co., Well 3, S. of Colton; 1570 feet S. from intersection of S. 3d St. and La Cadena Drive, 85 feet W. of La Cadena Drive. Use: Irrigation. Perforated 40-230.	1796SE	904	*240	(d)	Sept., 1918	-----	-----	32	267	26	50	5	65	13	146	
E-77-I-27	Tennel Water Co., Palm Ave. Plant, S. of Colton; 142 feet S. of Palm Ave., 482 feet E. of intersection of La Cadena Drive and Palm Ave. Use: Irrigation. Casing: 16 inches. Perforated 127-235, 247-331	17966	956	*372	(d)	Aug., 1928	-----	-----	16	229	32	38	-----	52	24	20	
E-77b-I-27	Merrifield Water Co., S. of Colton; 135 feet W. of La Cadena Drive, 12 feet S. of Palm Ave. Use: Irrigation. Casing: 12 inches.	17966B	950	200	(d)	Sept., 1918	-----	-----	25	247	21	40	46	73	15	118	
E-77e-I-27	Riverside Highland Water Co., County Line Well, N. of Highgrove; 100 feet N. of Main St., 60 feet W. of A. T. & S. F. Ry. tracks. Use: Irrigation. Casing: 20 inches. Perforated 80-227, 282-340, 362-380.	17967	942	*420	(d)	6/24/29	-----	-----	22	280	40	53	-----	72	20	135	



TABLE 18. WELLS IN RIVERSIDE AREA—Continued

Well number	Location and description	Location number	Elevation of well ground in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)					
									Bicarbonate radiolar (HCO <sub>3</sub> )	Chloride radiolar (Cl)	Sulfate radiolar (SO <sub>4</sub> )	Nitrate radiolar (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)
E-80-H-27	Riverside Water Co. Plant 5, S. of Colton; 3500 feet S. of East N St., 1750 feet W. of Mt. Vernon Ave. 135 feet E. of Riverside Water Co. wooden flume, 2500 feet S. of Plant 2. In Santa Ana River bottom. Use: Irrigation. Casing: 20 inches. Perforated 78-300.	17974	915	*327	(d)	8/ 1/30	-----	-----	-----	28	-----	-----	-----	-----
E-81b-H-27	La Sierra Water Co., Well 7, S. of Colton; 820 feet S. of intersection of La Cadena Drive and S. 33 St., 1260 feet E. of La Cadena Drive. Use: Irrigation. Casing: 20 inches. Perforated 202-211; 217-257; 307-308.	17975B	905	*363	(d)	2/25/20	-----	34	268	221	94	25	122	30
E-82-I-27	Gage Canal Co., De Berry Plant, S. of Colton; 782 feet S. of Palm Ave., 679 feet W. of Michigan Ave. Use: Irrigation. Casing: 20 inches. Perforated 152-188; 197-209; 218-258.	17976	970	*266	(d) (d) (d) 1373	Oct., 1926 8/15/28 Sept., 1930 9/12/32	----- ----- ----- 68.5	32 29 31 31	231 260 290 277	37 35 64 44	53 41 60 51	----- ----- ----- 10	54 55 75 74	17 19 20 14
E-87b-H-27	Riverside Water Co., Plant 3, S. of Colton; 2400 feet S. of East N St., 1350 feet W. of Mt. Vernon Ave., 37 feet E. of Riverside Water Co. wooden flume, 1250 feet S. of Plant 2. In Santa Ana River bottom. Use: Irrigation. Casing: 20 inches. Perforated 68-88; 108-220.	17984B	919	*530	(d)	8/ 1/30	-----	-----	-----	21	-----	-----	-----	-----
E-88b-H-27	Vista Grande Water Co., S. of Colton; 1490 feet S. of Washington St., 700 feet E. of Mt. Vernon Ave. Use: Irrigation. Casing: 10 inches.	17985B	930	172	(e)	9/25/26	-----	31	281	28	48	-----	62	16
E-88c-H-27	Vista Grande Water Co., S. of Colton; 1450 feet S. of Washington St., 750 feet E. of Mt. Vernon Ave. Use: Irrigation. Casing: 20 inches. Gravel 42-54.	17985C	930	*175	(d)	June, 1929	-----	-----	260	95	-----	-----	-----	-----
E-91-H-27	Riverside Highland Water Co., Delta Well 3, SE. of Colton; 2100 feet E. of Mt. Vernon Ave., 1250 feet N. of Washington St. Use: Irrigation. Casing: 20 inches. Perforated 34-64; 70-110; 150-168.	17994	938	*182	(d)	7/ 2/28	-----	52	360	57	68	-----	74	14
E-91a-H-27	Riverside Highland Water Co., Delta Well 4, SE. of Colton; 2300 feet N. of Washington St., 2700 feet E. of Mt. Vernon Ave. Use: Irrigation. Casing: 20 inches. Perforated 1-4, 104-134, 150-160; 228-240; 324-334; 370-380.	17994A	942	*404	(d)	7/ 2/28	-----	47	345	47	88	-----	68	15
E-92-H-27	Riverside Highland Water Co., Steam plant, SE. of Colton; 500 feet E. and 500 feet S. of the N. 1/4 corner of Sec. 33, T. 1 S., R. 4 W., S. B. & M. Use: Boiler feed water.	17995	955	-----	(e)	6/ 5/28	-----	36	280	34	49	-----	61	14
E-160-I-24	W. J. Hole Estate, NW. of Arlington; center of NW 1/4, Sec. 34, T. 2 S., R. 6 W., S. B. & M. Use: Not used since 1923, caved in.	16894	-----	-----	(d)	1916	-----	36	246	234	128	43	112	28
E-161-K-24	J. D. Lorenz, W. of Arlington; 1000 feet W. of Pierce St., 400 feet S. of east and west center line of Sec. 15, T. 3 S., R. 6 W., S. B. & M. Use: Irrigation and domestic. Casing: 4 x 5' dug well.	16899	-----	x77	(d)	Jan. 1931	-----	-----	103	135	-----	-----	-----	-----
E-164d-K-24	J. C. Ducreken, Old Well, W. of Arlington; 150 feet NE. of Holden Ave., 0.25 mile NW. of Hole Ave. Use: Domestic and irrigation. Casing: 12 inches.	16917	730	*40	(e) 926	7/ 8/31 5/ 4/32	205 161	56 53	372 400	350 247	171 134	75 27	102 96	48 40
E-164e-K-24	J. C. Ducreken, New Well, W. of Arlington; 160 feet NE. of Holden Ave., 0.25 mile NW. of Hole Ave. Use: Drilling well, not yet used. Lab No. 925 was sampled from depth of 70 feet, and Lab. No. 929 from depth of 35-45 feet, where break in casing allowed water from old well to flow in, according to owner. Lab. No. 930 and No. 931 were from depths of 50-55 feet and 63-70 feet, respectively.	16917A	730	-----	925 929 930 931	4/22/32 5/ 6/32 5/ 6/32 5/ 6/32	251 162 163 163	----- 0.43 0.28 0.26 0.24	424 387 390 390	446 248 248 248	----- ----- ----- -----	----- ----- ----- -----	----- ----- ----- -----	----- ----- ----- -----
E-164f-K-24	Mr. J. R. Cardwell, NE. of Corona; 15 feet N. of Gramercy St., 0.18 mile W. of Holden Ave. Use: Irrigation. Casing: 7 inches. Bailey No. 3610A.	16907B	755	x61	(f)	11/24/31	182	-----	-----	258	-----	-----	-----	-----
E-165-K-24	Southern California Junior College, Well 4, SW. of Arlington; 0.47 mile NW. of Magnolia Ave., 0.27 mile NE. of Pierce St. Use: Irrigation. Casing: 16 inches. Bailey No. 3615A.	16909	695	x150	(d) (e)	Dec. 1930 11/19/31	----- -----	32	320 174	115 60	----- 169	----- -----	68	24
E-165a-K-24	Southern California Junior College, Well 1, SW. of Arlington; 0.47 mile NW. of Magnolia Ave., 0.23 mile NE. of Pierce St. Use: Irrigation. Casing: 15 x 27, 35 x 54, 41 x 50.	16909A	694	*150	(d)	Dec. 1930	-----	-----	256	138	-----	-----	-----	-----



TABLE 18. WELLS IN RIVERSIDE AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>-3</sup> at 25°C)	Boron ppm	Per cent sodium (Ca + Mg + Na)	Constituents (parts per million)					
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)
E-165d-K-24	Alvord Mutual Water Co., Plant 1, SW. of Arlington; 0.20 mile SW. of Magnolia Ave., 15 feet NE. of Golden Ave., 20 feet NW. of new well. Use: Irrigation. Bailey No. 3614A.	16919	699	---	(e) (1) (1)	8/5/20 10/5/31 11/30/31	---	---	40	244	118	72	---	70	16
E-166-J-24	Twin Buttes Water Co., Plant 5, NW. of Arlington; 0.150 feet northerly at right angles to Arlington Ave., 5,800 feet north-easterly from intersection of Bailey Road and Jurupa Ave. On S. side of Santa Ana River, 60 feet S. of channel. Use: Irrigation.	16923	655	---	(c) (1)	8/5/28 Sept. 1928	---	---	17	274	88	40	---	106	16
E-167-J-24	Mrs. E. S. Freeman, NW. of Arlington; 600 feet W. of Tyler Ave., 300 feet N. of Arlington Ave. Use: Domestic and irrigation.	16925	800	68	946	5/13/32	121	0.16	29	238	220	51	18	95	45
E-168-K-24	Mrs. M. C. Bailey, W. of Arlington; 300 feet NW. of Cook St., 550 feet SW. of Tyler Ave. Use: Domestic and irrigation. Casing: 5" x 5" dug well.	16927	755	48	947	5/13/32	142	0.16	39	140	295	75	35	89	45
E-169a-K-24	Mrs. Marie Bresson, SW. of Arlington; 1,280 feet NE. of Polk St., 675 feet SE. of Magnolia Ave., 20 feet W. of Riverside City Limits. Use: Irrigation. Casing: 12 to 16 inches.	16930A	732	x145	(d) (1)	Nov. 1924 July 1930	---	---	34	152 240	142 88	90	---	70	21
E-169b-K-24	Daily Water Co., Inc. Well 1, SW. of Arlington; 1,380 feet SE. of Magnolia Ave., 1,200 feet SW. of Polk St., 25 feet southeasterly from Well 2. Use: Irrigation. Casing: 15 inches. Perforated 60-80; 80-112. Samples in August and September, 1918, are composite of both wells, which are same depth and perforated in same strata.	16930B	709	*112	(d) (1)	Aug. 1918 Oct. 1918	---	---	40	250 244	215 230	88 88	32 9	92 90	35 32
E-169c-K-24	Owner unknown, SW. of Arlington; 650 feet NE. of Polk St., 800 feet SE. of Magnolia Ave. Open casing in back of small station located 1/2 mile NE. of Arlington Ave. Use: Domestic.	16939	730	108	(d)	1920	---	---	37	207	298	100	42	135	34
E-169d-K-24	W. J. Hole, SW. of Arlington; 340 feet NW. of Magnolia Ave., 30 feet SW. of Polk St. Use: Irrigation. Casing: 20 inches. Perforated 85-97. Lab. Nos. 1721 and 1722 were sampled from sand stratum at depths of 13-24 feet and 26-55 feet, respectively. Lab. No. 1723 from gravel stratum at depth of 55-95 feet.	16939II	717	*108	1720 1721 1722 1723 1737	2/4/33 2/4/33 2/6/33 2/6/33 2/27/33	103 102 104 113 83.4	0.32 0.36 0.34 0.28	---	387 375 473 415 288	82 84 114 106 77	---	---	---	---
E-170-J-25	F. H. Koehlschier, G. K. Sanborn Well 1, N. of Arlington; 60 feet S. of Jurupa Ave., 0.2 mile E. of Van Buren St. Use: Domestic. Casing: 5" x 5" dug well.	16953	760	x56	951	5/11/32	123	0.18	38	311	176	57	27	83	41
E-170a-J-25	Arlington Mutual Water Co., Plant 4, N. of Arlington; 1,750 feet E. of Van Buren St., extended, 2,650 feet N. of Jurupa Ave., on S. bank of Santa Ana River. Use: Irrigation. Pump draws from battery of four wells drilled to rock along river bed.	16953A	695	45	983	5/13/32	89.5	0.12	32	311	92	60	6	94	19
E-172c-K-25	W. A. Caldwell, N. of Arlington; 0.20 mile E. of Van Buren St., 25 feet S. of Arlington Ave. Use: Domestic.	16945B	735	20	950	5/13/32	226	0.48	64	631	343	139	35	68	66
E-173a-K-25	Arlington Mutual Water Co., Plant 1-A, NE. of Arlington; 0.7 mile NE. of Van Buren St., 20 feet N. of California Ave. Use: Irrigation.	16956A	750	---	(c) 1582	8/5/29 12/15/32	---	---	30 31	270 293	328 306	79 106	---	137 159	36 42
E-173b-K-25	Arlington Mutual Water Co., Plant 1-B, NE. of Arlington; 0.8 mile NE. of Van Buren St., 100 feet N. of California Ave., 350 feet NE. of E-173a-K-25. Use: Irrigation.	16956B	750	---	(c) 1583	8/5/29 12/15/32	149	0.21	34	290 274	315 274	81 73	---	150 149	31 38
E-173c-K-25	Arlington Mutual Water Co., Plant 1, NE. of Arlington; 1,330 feet NE. of Van Buren St., 415 feet NW. of California Ave. 18 wells in open pit, 4.3' x 473.6' x 16'. Use: Not used, formerly irrigation.	16956	750	x	(d)	1924	---	---	33	265	308	84	---	150	32
E-174-K-25	W. A. Errington, NW. of Arlington; 135 feet SW. of Van Buren St., 36 feet NW. of California Ave. Use: Irrigation. Casing: 12 inches.	16947	763	x90	(d) 948	Sept. 1927 5/13/32	---	---	---	350 311	150 135	---	---	---	---
E-174c-K-25	N. N. Watts, N. of Arlington; 615 feet SW. of Jackson St., 46 feet NW. of Garfield St. Use: Irrigation. Casing: 16 inches. Perforated 47-74; 80-98; 107-116.	16957	745	*116	(d)	Sept. 1925	---	---	---	---	160	---	---	---	---
E-174e-K-25	A. Harris, NE. of Arlington; 300 feet SW. of Jackson St., 150 feet NW. of Magnolia Ave. Use: Irrigation and stock. Casing: 7 inches.	16957B	733	x72	1699	1/30/33	90.5	0.25	57	268	98	62	22	50	18



TABLE 18. WELLS IN RIVERSIDE AREA—Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific gravity (K <sub>2</sub> 10 <sup>3</sup> at 25°C)	Boron ppm	Ferrous Na x 100 Ca + Mg	Constituents (parts per million)					
										Bicarbonate (HCO <sub>3</sub> )	Chloride (Cl)	Sulfate (SO <sub>4</sub> )	Nitrate (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)
E-174f-K-25	B. Morris, NW. of Arlington; 400 feet SW. of Van Buren St., 350 feet SE. of California Ave. Use: Domestic and stock.	16947C	760	30	949	5/13/32	151	0.28	44	324	208	118	57	116	35
E-175-K-24	Citizens Domestic Water Co., Plant 1, Arlington; 150 feet N. of Hole Ave., 260 feet NW. of Magnolia Ave. Use: Irrigation.	16948	756	---	(c) 1581	8/5/28 12/15/32	87.9	0.26	42	244	125	63	---	77	15
E-175a-K-24	Citizens Domestic Water Co., Plant 2, Arlington; 230 feet N. of Hole Ave., 300 feet NW. of Magnolia Ave., 80 feet N. of Plant 1. Use: Irrigation. Perforated 110 ft., Bailey No. 36133.	16948A	756	*165	(f) (f)	10/2/31 11/20/31	99 102	---	42 46	268 278	107 107	85 72	---	76 71	18 16
E-175f-K-24	Chas. H. Meira, Arlington; 350 feet NW. of Magnolia Ave., 350 feet N. of Hole Ave. Use: Irrigation.	16948D	757	168	705	2/12/32	83.2	0.22	---	259	96	---	---	---	---
E-176-K-24	Ellis M. Lund, S. of Arlington; 90 feet NW. of Indiana Ave., 90 feet NE. of Tyler Ave. Use: Domestic. Casing: 7 inch.	16949D	762	*125	759	2/26/32	94.3	0.17	35	253	123	76	23	72	35
E-176a-K-24	John A. Hamner, SW. of Arlington; 50 feet SW. of Tyler St., 1,250 feet SE. of Magnolia Ave. Use: Irrigation.	16949A	750	---	(d) July 1930	---	---	---	---	268	60	---	---	---	---
E-176b-K-24	F. J. Graser, SW. of Arlington; 160 feet SE. of Indiana Ave., 1,310 feet NE. of Folk St. Use: Irrigation. Gravel 83-98.	16949B	755	*98	(d) 8/1/30	---	---	---	28	305	128	155	---	120	30
E-176c-K-24	F. B. Coeka, SW. of Arlington; 10 feet SE. of Indiana Ave., 1,150 feet NE. of Folk St. Use: Irrigation. Gravel 85-103.	16949C	755	*103	(c) 4/23/30	---	---	---	39	315	128	92	---	80	31
E-176d-K-25	O. C. McNicholl, Beulah Springs Well, S. of Arlington; 200 feet SW. of Hughes Place, 300 feet SE. of Indiana Ave. Use: Commercial mineral water. Flows. Pumped when bottling water.	16949	775	---	(c) (c) 760	12/5/28 2/20/30 3/2/32	59.5 59.5	0.84 0.50	100 90 89	964 964 975	101 99 101	80 76 64	---	0 9 3	0 1 5
E-176e-K-25	R. L. Crippen, S. of Arlington; 60 feet SW. of Harrison St., 230 feet SE. of Fox St. Use: Irrigation.	16950	800	*250	(d) Nov. 1918 Oct. 1926	---	---	---	17 22	195 284	280 160	129 131	28	150 94	50 55
E-176e-K-24	Frank Hambleton, SW. of Arlington; 200 feet SW. of Tyler St., 0.25 mile SE. of Magnolia Ave. Use: Domestic.	16949E	750	90	1698	1/30/33	64.6	0.19	50	226	55	50	9	40	17
E-176b-K-24	Dave Sampson, SW. of Arlington; 150 feet SE. of Indiana Ave., 250 feet NE. of Tyler St. Use: Domestic.	16949F	762	100	1697	1/30/33	94.2	0.17	38	201	124	84	11	59	37
E-177a-J-25	M. H. Payton, SW. of Riverside; 100 feet S. of Juniper Ave., 300 feet W. of A. T. & F. R. Use: Domestic. Casing: 2 inch.	16973A	770	85	988	5/11/32	118	0.26	49	500	69	75	13	72	31
E-178a-J-25	E. G. Harris, SW. of Riverside; 630 feet N. of Central Ave., 70 feet E. of Leach St. Use: Irrigation. Casing: 10 inches. Located 63° N., 10° 11' W.	16974A	778	*117	987	5/13/32	129	0.22	38	336	194	70	18	106	38
E-178b-J-25	De Luxe Land & Water Co., NE. of Arlington; 50 feet W. of Phoenix Ave., 600 feet S. of Central Ave. Use: Irrigation and domestic.	16974	780	70	(d) 956	8/19/24 5/13/32	---	0.25	49	420 390	160 213	83	---	98	20
E-178d-J-25	F. G. Wayman, NE. of Arlington; 150 feet E. of Phoenix Ave., 1,000 feet S. of Central Ave. Use: Domestic.	16974D	180	80	955	5/13/32	149	0.28	---	387	220	---	---	---	---
E-178e-K-25	Otto Martin, NE. of Arlington; 50 feet N. of Central Ave., 300 feet W. of Leach St., 1,000 feet W. of Phoenix Ave. Use: Domestic and feedlot.	16974E	790	65	984	5/13/32	138	0.20	35	369	227	41	18	109	49
E-179-K-25	Owner unknown, NE. of Arlington; 20 feet S. of Arlington Ave., 30 feet NE. of Adams St. Use: Domestic.	16965	700	*40	982	5/13/32	116	0.18	47	400	122	61	29	62	41
E-180-K-25	E. R. Murphy, NE. of Arlington; 160 feet NW. of California Ave., 585 feet NE. of Monroe St. Use: Not used. Casing: 12 inches. Lab. No. 710 was sampled from water surface and Lab. No. 761 from depth of 45 feet.	16966A	755	*80	(d) 710 761	1916 2/13/32 3/2/32	48.4 49.4	0.12 0.09	76 39	517 137 143	171 62 66	84 36	24 2	35 37	20 12
E-180a-K-25	J. C. Lutler, NE. of Arlington; 1,215 feet NW. of California Ave., 655 feet NW. of Monroe St. Use: Not used. Casing: Dug well.	16966	755	---	(d) 1916	---	---	---	39	269	500	126	31	173	57
E-180b-K-25	Clyde Spratt, NE. of Arlington; 130 feet SE. of California Ave., 920 feet SW. of Monroe St. Use: Domestic and irrigation. Casing: 10 inches.	16966B	750	---	(d) 8/28/24	---	---	---	40	384	142	86	---	71	37
E-180c-K-25	W. V. Naugle, NE. of Arlington; 10 feet SW. of Monroe St., 10 feet NW. of California Ave. Use: Irrigation. Casing: 14 inches. Gravel 25-30.	16966C	750	*84	1087	6/23/32	145	0.20	---	308	248	---	---	---	---



TABLE 18. WELLS IN RIVERSIDE AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical resistance (K x 10 <sup>4</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate (HCO <sub>3</sub> )	Chloride (Cl)	Sulfate (SO <sub>4</sub> )	Nitrate (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
E-180e-K-25	Neighbors of Woodcraft, NE. of Arlington; 0.15 mile SW. of Adams St., 0.12 mile SE. of Magnolia Ave. Use: Irrigation and domestic. Casing: 16 inches. Perforated 90-96; 111-129.	16976	790	*141	(e) 336	3/7/30 9/19/31	184	0.22	27 33	297 290	355 375	101 92	43	174 171	45 42	104 139
E-180f-K-25	Neighbors of Woodcraft, Well 2, NE. of Arlington; 0.15 mile SE. of Magnolia Ave., 0.17 mile SW. of Adams St. Use: Irrigation. Casing: 16 inches. Perforated 84-119; 132-149; 166-179.	16976c	790	*180	1724	2/7/33	167	0.24	39	262	334	88	45	143	40	152
E-181-K-25	Sherman Indian Institute, Arlington; 1,000 feet SE. of Magnolia Ave., 400 feet NE. of Jackson St. Use: Domestic and irrigation. Sampled on 2/12/32 from supply tank to which this and another well 25 feet away are connected, one of which is 124 feet deep.	16967B	770	160	704	2/12/32	73.8	0.16	46	223	80	53	13	48	22	82
E-182a-K-25	G. A. Starrett, Jackson St. Well. SE. of Arlington; 55 feet SW. of Jackson St., 1,300 feet NW. of Lincoln Ave. Use: Not used. Gravel 88-110; hot water from crevices in granite 382-420. Lab. Nos. 707, 708 and 709 were sampled from depths of 75, 166 and 321 feet, respectively.	16968	835	*x421	(d) 708 709 707	Aug. 1928 2/12/32 2/12/32 2/13/32	59.4 59.5 59.7	0.51 0.44 0.49	68 91	485 463 463	100 101 101	90 70 70	6 5 3	20	95 117	95
E-183-K-25	G. A. Starrett and Mr. Shearer. SE. of Arlington; 650 feet SE. of Victoria Ave., 75 feet SW. of Jackson St. Casing: 7 inches. Use: Irrigation. Perforated 70-100.	16979	900	*115	(d) 1853	Nov. 1918 3/30/33	70.1	0.12	48 35	216 210	115 76	63 54	18 11	47 54	20 26	183 60
E-183a-K-25	J. L. Kellam. SE. of Arlington; 45 feet SE. of Cleveland Ave., 600 feet SW. of Jackson St. Use: Irrigation. Casing: 14 inches.	16979A	900	127	(e) (e) (e)	9/21/25 2/15/26 9/30/30			41 53 35	183 238 250	54 37 50	61 33 40		45 35 51	14 11 19	55 51 51
E-187b-K-25	Madison Park Pumping Association. NE. of Arlington; 290 feet NW. of Indiana Ave., 135 feet NE. of Hoover St. Use: Irrigation.	16996	861	187	(d)	8/24/17			36	165	369	49	89	134	38	124
E-188-K-25	Owner unknown, Beulah Well. E. of Arlington; 150 feet SE. of A. T. & S. F. Ry., 60 feet SW. of Adams St. Use: Irrigation.	16987	845		(d) (d) (d) (d) (d) (e)	2/2/16 Aug. 1918 9/23/21 4/27/22 7/26/22 8/30/22 7/15/22 7/20/22			16 49 54 54 52 49	176 227 235 253 235 231 245	388 551 523 532 514 480 582 532	137 114 206 190 125 108 109 153	29 130 141 110 125 110 109 77	169 145 206 139 142 143	62 52 60 55 10 58 58 124	58 254 276 310 201 263 120
E-188a-K-25	Orange Acres Mutual Water Co. (formerly The Riverside Trust Co.), E. of Arlington; 750 feet NE. of Adams St., 100 feet NW. of A. T. & S. F. Ry. Use: Irrigation. Gravel 102-106; 146-160; 200-214.	16987A	845	*325	(d) (d)	4/26/16 Nov. 1918			33 34	212 220	517 340	99 96	113 39	188 139	64 53	165 120
E-180-K-25	E. D. Lindley. E. of Arlington; 55 feet SW. of Gratton St., 90 feet NW. of Lincoln Ave. Use: Irrigation.	16988	845		(d) (d) (d) (e)	5/18/16 Nov. 1918 Jan. 1919 1/6/31			32 45 46 38	270 239 183 207	422 555 546 373	110 108 108 109	113 41 66 ---	184 157 137 104	55 56 56 58	150 235 229 141
E-192a-J-26	E. F. Graser. Riverside; 200 feet S. of Tequesquite Ave., 30 feet NW. of Alvarado St., extended, 0.4 mile W. of Pine St. Use: Dairy and domestic. Casing: 7 inches.	17002	769	x49	941	5/11/32	84.3	0.08	31	281	96	41	8	91	16	62
E-192d-J-26	Riverside Laundry. Riverside; 100 feet NW. of Brookton Ave., 420 feet SW. of 14th St. Use: Industrial. Casing: 14 inches. U. S. D. A. and D. W. R. analyses on 5/11/32 are from same sample.	17012C	795	246	940	5/11/32 5/11/32	35.2 35.0	0.03 0.04	25 24	177 186	9 11	16 17	2 3	46 48	6 6	22 21
E-192e-J-26	Royal Laundry. Riverside; 300 feet SW. of 14th St., 150 feet SE. of Brookton Ave. Use: Industrial. Casing: 10 inches.	17012D	795	165	1042	6/7/32	63.6	0.08	28	253	55	35	6	73	13	42
E-193a-K-26	Orange Acres Mutual Water Co. (formerly The Riverside Trust Co.), SW. of Riverside; 70 feet SE. of A. T. & S. F. Ry., 70 feet NE. of Mary St. Use: Irrigation. Casing: 12 inches. Perforated 124-138, 160 lbs.	17005	875	*249	(d) (d)	4/26/16 Jan. 1919			41 39	161 201	567 503	52 75	113 20	161 155	64 56	222 179
E-193b-K-26	Earl Fruit Co. SW. of Riverside; 80 feet SE. of A. T. & S. F. Ry., 600 feet NE. of Jane St. Near Fairhappa Station. Use: Irrigation. Casing: 10 inches. Gravel 104-107; 180-188.	17015A	876	*x245	(d) (d) (d) 301	4/26/16 Jan. 1919 July 1923 9/15/31			41 43 21	133 213 220 223	634 627 475 460	47 76 475 460	78 28 43	178 172 119	56 58 40	222 228 215
E-194-K-26	McCormack Pumping Association. SW. of Riverside; 15 feet SE. of Indiana Ave., 15 feet SW. of Washington St. Use: Irriga-	17006	860	x165	(d)	5/18/16			42	169	387	61	102	131	42	164



TABLE 18. WELLS IN RIVERSIDE AREA—Continued

[illegible]







Well number	Location and description	Location number	Elevation of ground, in feet	Total depth of well, in feet	Laboratory number	Date	Specific electrical conductance (K <sub>2</sub> CO <sub>3</sub> at 25°C)	Boron, ppm	Percent sodium (Na x 100) Ca + Mg + Na	Constituents (parts per million)					
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)
E-299b-L-24	E. J. Generaux, Well 2, SW. of Arlington; 0.3 mile SE. of Magnolia Ave., 30 feet SW. of Pierce St. Use: Not used. Casing: 16 inches. Perforated 59-62; 65-77; 86-98.	16010	702	*101	(d)	Nov. 1930	---	---	14	280	39	60	---	78	25
E-304a-L-24	F. W. Knard, SW. of Arlington; 190 feet SE. of Arizona Ave., 77 feet SW. of Taylor St. Use: Domestic. Casing: 6 inches. Bailey No. 3624B.	16030	780	x60	(d) (f)	Oct. 1918 11/24/31	---	---	44 46	*268 308	123 92	106 134	13	62 66	27 28
E-304c-L-24	Mrs. P. W. Swanson, SW. of Arlington; 100 feet SW. of Wilmore St., 20 feet SE. of Arizona Ave., extended. Use: Domestic. Bailey No. 3626A.	16021	790	---	(f)	11/24/31	167	---	41	275	176	171	---	96	35
E-309-L-25	Thomas G. Thurbay, S. of Arlington; 120 feet N. of Victoria Ave., 80 feet NE. of John St., extended. Use: Irrigation and domestic. Casing: 15 inches.	16050	840	60	(d)	Oct. 1926	---	---	19	250	142	107	---	94	47
E-319-L-25	E. J. Generaux, SE. of Arlington; 285 feet W. of Mockingbird Canyon Road, 783 feet SW. of Irving St., 675 feet N. of Riverside City Limits, 21 feet NW. of E-319b-L-25. Use: Irrigation. Casing: 14 inches.	16090	1,000	---	(d)	Feb. 1931	---	---	43	280	200	120	---	88	35
E-319a-L-25	J. P. Clark, Well 1, SE. of Arlington; 290 feet W. of Mockingbird Canyon Road, 800 feet SW. of Irving St., 640 feet N. of Riverside City Limits, 36 feet SE. of E-319b-L-25. Use: Not used.	16090A	1,000	130	(d)	Mar. 1927	---	---	33	262	213	140	---	106	44
E-319b-L-25	Judson F. Clark, Well 2, SE. of Arlington; 270 feet W. of Mockingbird Canyon Road, 800 feet SW. of Irving St., 660 feet N. of Riverside City Limits. Use: Irrigation	16090B	1,000	---	(d)	Mar. 1928	---	---	55	290	195	254	---	82	36
E-319c-L-25	M. B. Collins, SE. of Arlington; 42 feet S. of County Road, 140 feet W. of Mockingbird Canyon Road, 490 feet S. of Riverside City Limits. Use: Domestic and irrigation.	16091	1,000	---	(d)	Mar. 1928	---	---	---	268	184	---	---	---	---
E-325-L-26	A. Larry Butler, SE. of Arlington; 1.65 mile up Mockingbird Canyon Road from Irving St., 150 feet NE. of road, 25 feet W. and 205 feet N. of S. 1/4 corner, Sec. 27, T. 3 S., R. 5 W., S. B. B. & M. Use: Irrigation and domestic.	16102	1,100	---	(d)	Aug. 1928	---	---	---	275	177	---	---	---	---
E-325a-L-26	E. J. Allen, SE. of Arlington, 1 1/2 mile up Mockingbird Canyon Road from Irving St., 150 feet NE. of road, 400 feet S. and 1,010 feet E. of N. 1/4 corner, Sec. 34, T. 3 S., R. 5 W., S. B. B. & M. Use: Irrigation and domestic.	16102A	1,200	---	(f)	Nov. 1927	---	---	---	256	150	---	---	---	---
E-329-L-26	W. Bockelman, SE. of Arlington; 100 feet W. of main road to Woodcrest from Bradley St. through Casa Blanca, 100 feet S. of County Road. Use: Domestic and irrigation. U. S. D. A. and D. W. R. analyses on 5/12/32 are from same sample.	16131	1,585	43	945 (g)	5/12/32 5/12/32	63.5 63.1	0.14 0.13	38 33	140 165	80 78	27 30	20 32	44 44	19 19
E-339-L-27	Captain Gust Johnson, Woodcrest; 100 feet W. of Wood Road, 0.75 mile N. of Iris Ave. Use: Domestic and irrigation.	16160	1,585	42	942	5/13/32	131	0.15	29	137	290	31	35	92	48
E-339a-L-27	J. I. Van Zandt, Woodcrest; 200 feet N. of Iris Ave., 300 feet W. of Wood Road. Use: Domestic and irrigation.	16161	1,630	74	944	5/12/32	44.9	0.14	40	110	55	14	18	27	14
E-349-L-28	F. O'Neill, S. of March Field; 100 feet E. of Perris Highway, 70 feet N. of Iris Ave. Use: Domestic. Casing: 6 inches.	16221	1,535	110	936	5/12/32	85.4	0.10	26	131	158	10	31	71	29

\* Loc. in files of Division of Water Resources.

x Water levels in files of Division of Water Resources.

a Includes small equivalent quantity of Carbonate (CO<sub>2</sub>).

b Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.

c Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.

d Analysis by University of California, Graduate School of Tropical Agriculture and Citrus Experiment Station, Riverside, California.

e Analysis by Edward S. Babcock and Sons, Riverside, California.

f Analysis by Edward S. Babcock and Sons, Riverside, California. Data from Case No. 22046 (Corona Foothill Lemon Co., a Corp., vs. C. E. Lillibridge, et al.), in the Superior Court of the State of California, in and for the County of Riverside.

g Analysis by Agricultural Laboratory, Anaheim, California. Data from Case No. 22046 (Corona Foothill Lemon Co., a Corp., vs. C. E. Lillibridge, et al.), in the Superior Court of the State of California, in and for the County of Riverside.



TABLE 19. WELLS IN TEMESCAL AREA

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific gravity (K x 10 <sup>-3</sup> )	Baron ppm	Per cent sodium + Na	Constituents (parts per million)						
										Bicarbonate (HCO <sub>3</sub> )	Chloride (Cl)	Sulfate (SO <sub>4</sub> )	Soluble radiolite (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
E 147 L 21	Mrs. Edith Nichols, NE. of Prado; 125 feet NE. of Yorba St., 0.25 mile NW. of intersection of Yorba St. and A. T. & S. F. Ry. Use: Domestic. Bailey No. 3721C.	16780G	498	x22	( )	10/2/31 11/25/31	131 135		31	284	167 177	113	121	32	150	
E 147 L 21	Santa Ana Water Co. NE. of Prado; 0.43 mile NW. of intersection of A. T. & S. F. Ry. and Yorba St., 150 feet E. of Yorba St. Use: Domestic. Casing: 12 inches. Bailey No. 3716F.	16789	496	x	( )	9/23/31 10/2/31 11/25/31	171 167 171		31 35	367 351	259 259 263	123 124	151 142	41 41	113 132	
E 148 K 22	Anaheim Union Water Co. NW. of Corona; 0.45 mile NW. of Croydon St. on line of Rincon St., extended, 0.12 mile S. of ranch road. On top of hill. Use: Domestic. Casing: 6 inches. Bailey No. 3715B.	16799	615	x169	( )	11/28/31	77		11	159	110	26	44	40	116	
E 149 K 22	Mrs. W. C. Warner, NW. of Corona; 25 feet SW. of Abundant Road, 0.46 mile NW. of Croydon St. Use: Domestic. Bailey No. 3710E.	16807A	530		( )	11/24/31	64		35	230	60	44	59	13	150	
E 150 K 22	John Halden, NW. of Corona; 0.55 mile NW. of Croydon St., 1,000 feet SW. of Abundant Road (River St.). On hill. Use: Domestic. Casing: 15 inches. Bailey No. 3710F.	16808	601	x134	( )	9/23/31 10/5/31 11/24/31	82 80 82		57 60 63	170 159 162	131 131 128	44 54 61	41 40 36	13 9 10	104 107 112	
E 150 K 22	Rex Clark, NW. of Corona; 1,400 feet SW. of Abundant Road, 50 feet NW. of Croydon St. Use: Not used. Casing: 10 inches. Bailey No. 3714A.	16818A	567	x211	( )	2/6/32					100	28	25	12		
E 151 L 22	Mrs. F. J. Baldwin, NW. of Corona; 0.40 mile SE. of Croydon St., 0.15 mile NE. of Rincon St. Use: Irrigation. Bailey No. 3714D.	16809B	536	x119	( )	12/21/31	90		4	232	113	48	59	28	161	
E 151 L 22	W. B. Covington, NW. of Corona; 100 feet SW. of Rincon St., extended, 200 feet NW. of Croydon St., extended. Use: Irrigation. Casing: 7 inches. Bailey No. 3715L.	16809C	525	xASD	( )	9/20/31 10/2/31 11/24/31	161 145 140		39	339	256 257 256	74	130	27	127	
E 151 L 22	E. R. Wood, NW. of Corona; 0.36 mile NE. of Rincon St., 50 feet SE. of Croydon St. Use: Domestic. Bailey No. 3715G.	16809D	558	x	( )	10/5/31 11/24/31	69 70		44 46	143 149	103 107	28 29	36 35	18 17	28	
E 151 L 22	Mr. E. Bowen, NW. of Corona; 0.16 mile SE. of intersection of Croydon and Rincon Sts., 30 feet SW. of Rincon St. Use: Irrigation. Bailey No. 3715H.	16809E	527	xAS6	( )	9/20/31	188				309					
E 151 L 22	Mrs. E. Bowen, NW. of Corona; 0.19 mile SE. of intersection of Croydon and Rincon Sts., 100 feet SW. of Rincon St. Use: Domestic. Casing: 7 inches. Bailey No. 3715I.	16809F	527		( )	10/2/31 11/24/31	191 211		36	563	319 348	89	186	42	163	
E 151 K 22	C. E. Burner, NW. of Corona; 0.15 mile SE. of intersection of Croydon and Rincon Sts., 0.10 mile NE. of Rincon St. Use: Irrigation and domestic. Bailey No. 3715K.	16809G	530		( )	9/20/31 11/24/31	136 123		37 39	281 274	213 187	64 56	105 90	27 27	102 107	
E 151 K 22	W. B. Covington, NW. of Corona; 200 feet SW. of Rincon St., extended, 50 feet NW. of Croydon St., extended. Use: Domestic. Bailey No. 3715J.	16809H	526	x429	( )	9/20/30 10/2/31 11/24/31	186 183 140				302 302 215					
E 151 K 22	W. M. Wright, NW. of Corona; 100 feet S. of 2d St., 0.27 mile W. of Hamer Ave., 1 foot from E-1538-K-22. Use: Irrigation. Casing: 6 inches. Gravel 18-27. Bailey No. 3713C.	16838	600	x64	( )	9/30/31 11/20/31	119 112	0.25	37	237 210	209 208	64	79	33	160	
E 150 L 22	T. W. Mitchell, N. of Corona; 25 feet S. of 1st St., 0.15 mile E. of Pacific Ave. Use: Domestic and irrigation. Bailey No. 3724B.	16839F	584	x58	( )	9/30/31 11/20/31	115 108		46	119	259 231	45	49	32	105	
E 153 K 22	W. M. Wright, N. of Corona; 100 feet S. of 2d St., 0.27 mile W. of Hamer Ave., 1 foot from E-1539-K-22. Use: Domestic. Casing: 2 inches, driven. Perforated well point at 100 feet.	16834B	600	100	( )	11/20/31 3/21/33	74 65.5	0.33	55	165 156	103 103	59	36	15	187	
E 154 K 22	E. T. Daily, N. of Corona; 0.11 mile W. of Hamer Ave., 0.09 miles S. of 2d St. Use: Domestic. Casing: 7 inches. Bailey No. 3714E.	16835A	604	x70	( )	11/19/31	210				480					



TABLE 19. WELLS IN TEMESCAL AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance, $\mu\text{mhos/cm}$ at 25°C	Boron ppm	Per cent sodium $(\text{Na} + \text{NaCl})$	Constituents (parts per million)					
										Bicarbonate radicle ( $\text{HCO}_3$ )	Chloride radicle ( $\text{Cl}$ )	Sulfate radicle ( $\text{SO}_4$ )	Nitrate radicle ( $\text{NO}_3$ )	Calcium ( $\text{Ca}$ )	Magnesium ( $\text{Mg}$ )
E-1540-K-22	B. H. Ott, N. of Corona; 0.15 mile S. of 24 St., 0.16 mile W. of Hamner Ave. Use: Domestic. Casing: 10 inches. Bailey No. 3713F.	16839H	604	80	(*)	11/19/31	172				384				
E-1556-K-23	A. Henwood, E. of Norco; 0.28 mile S. of 6th St., 300 feet E. of Hillside Ave. Use: Irrigation and domestic. Bailey No. 365A.	16866	650		(*)	11/19/31	96		50	168	139	38		45	18
E-1596-K-23	W. C. Goodhue, N. of Corona; 250 feet S. of 1st St., 100 feet W. of Temescal St. Use: Domestic and irrigation. Casing: 5 inches, in 35-foot pit. Bailey No. 3618C.	16859	652	x61	(*)	11/19/31	85		54	174	121	40		47	11
E-265-L-21	Unita Campio, Prado; 1,900 feet W. of Center St., 100 feet S. of State Highway. Use: Domestic. Casing: 3' x 4' dug well. Bailey No. 3739I.	15860A	493	x19	(*)	9/22/31	123				42				
E-267-L-21	Excelsior Ranch Co., Ltd., Prado; 750 feet E. of Center St., 40 feet N. of A. T. & S. F. Ry. Use: Irrigation. Casing: 16 inches. Bailey No. 3721E.	15870A	489	x57	(*)	9/22/31	96				57				
E-267e-L-21	Excelsior Ranch Co., Ltd., N. of Prado; 0.25 mile N. of intersection of Center St. and A. T. & S. F. Ry., 100 feet E. of Center St. Use: Domestic cooling and washing bottles. Casing: 12 inches. Bailey No. 3720A.	15870E	484	x-----	(*)	9/22/31 10/2/31 11/25/31	106 107 107			235	117 118	122		93	24
E-267f-L-21	Excelsior Ranch Co., Ltd., Prado; 300 feet N. of State Highway, 100 feet W. of Center St. Use: Domestic. Casing: 7 inches. Bailey No. 3720G.	15870F	492	x-----	(*)	9/23/31 10/2/31 11/25/31	95 94 95				50 50 46				
E-267g-L-21	Ernest Gubert, Prado; 20 feet E. of Center St., 200 feet S. of State Highway. Use: Irrigation and domestic. Casing: 10 inches. Bailey No. 3720I.	15870G	501	x-----	(*)	9/22/31 10/2/31 11/25/31	95 97 98		10 18 17	265 265 256	43 44 44	106 204 208		105 106 97	41 36 40
E-267k-L-21	Excelsior Ranch Co., Ltd., Prado; 50 feet W. of Center St., 50 feet N. of road that is 700 feet S. of State Highway. Use: Irrigation. Bailey No. 3720K.	15870K	507	x-----	(*)	9/22/31	102				36				
E-267q-L-21	C. O. Dale, Prado; 200 feet N. of State Highway, 300 feet W. of Center St. Use: Domestic and irrigation. Casing: 12 inches. Bailey No. 3720-O.	15870Q	494	135	(*)	9/23/31 11/25/31	95 95				50 46				
E-267r-L-21	Atchison, Topeka & Santa Fe Ry., Prado; 20 feet S. of A. T. & S. F. Ry., 0.17 mile W. of Center St. Use: Domestic. Bailey No. 3720P.	15870R	486		(*)	11/25/31	105				35				
E-268-L-21	O. G. Meredith, Prado; 0.35 mile E. of Center St., 1,000 feet E. and 100 feet S. of turn to South in highway through Prado. Use: Domestic. Casing: 7 inches. Bailey No. 3721N.	15880	530	x-----	(*)	9/23/31 10/2/31 11/25/31	95 96 96				60 60 57				
E-268b-L-21	R. B. Wardlow, NE. of Prado; 100 feet S. of A. T. & S. F. Ry., 50 feet E. of Yorba St. Use: Domestic. Casing: 7 inches. Bailey No. 3721G.	15880B	512	x-----	(*)	11/25/31	97				107				
E-268e-L-21	Homer Pate, NE. of Prado; 300 feet NE. of Yorba St., 0.11 mile SE. of intersection of Yorba St. and A. T. & S. F. Ry. Use: Domestic. Casing: 24 inches, tile. Dug well filled around. Bailey No. 3721I.	15880E	541	x48	(*)	9/23/31 10/2/31 11/25/31	103 101 101		27 30 35	232 223 229	117 117 117	110 110 104		73 90 87	28 24 20
E-268g-L-21	C. H. Ashcroft, Prado; 300 feet E. of State Highway on projection of road that is 700 feet S. of State Highway. Use: Irrigation and domestic. Bailey No. 3721W.	15880G	545		(*)	9/22/31 11/25/31	96 96				50 50				
E-269-L-22	Homer Pate, E. of Prado; 650 feet S. of A. T. & S. F. Ry., 0.34 mile E. of intersection of A. T. & S. F. Ry. and Yorba St. Use: Irrigation. Casing: 12 inches. Bailey No. 3721J.	15890	525	x38	(*)	9/23/31	101		27	226	115	107		89	27
E-269a-L-22	Mr. Yorba, E. of Prado; 500 feet S. of A. T. & S. F. Ry., 3,800 feet W. of Railroad Ave. and Smith St. intersection, 2,000 feet SE. of Yorba St. Use: Irrigation. Casing: 8 inches. Gravel 55' to 80'. Bailey No. 3722H.	15890A	528	x80	(*)	12/19/31	104		30	232	117	100		87	25
E-270-L-21	R. B. Wardlow, SE. of Prado; 0.4 mile S. of State Highway, 0.8 mile W. of intersection of Yorba St. and State Highway. Use: Domestic. Casing: 14 inches. Bailey No. 3728A.	15892	611	x164	(*)	9/22/31 10/2/31 11/25/31	111 112 109		14 9	311 302	25 28 28	289 288		118 111	52 52
E-272-L-22	William Fisher, NE. of Corona; 550 feet SW. of Rincon St., 0.31 mile NW. of Smith Ave. Use: Irrigation. Casing: 12 inches. Bailey No. 3722B.	15900A	536	x48	(*)	9/20/31 12/19/31	181 171		34	333	284 267	106		126	40



TABLE 19. WELLS IN TEMESCAL AREA—Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca+Mg+Na	Constituents (parts per million)					
										Bicarbonate (HCO <sub>3</sub> )	Chloride (Cl)	Sulfate (SO <sub>4</sub> )	Nitrate (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)
E-272a-L-22	C. E., L. C., and J. E. Lillibridge, Well 4-B, NW. of Corona; 100 feet N. of A. T. & S. F. Ry., 0.30 mile NW. of Smith St. Use: Irrigation. Casing: 15 inches. Gravel 18-100. Bailey No. 3722G.	15900B	555	*x150	(e) (e)	9/20/31 11/24/31	116 115		33	290 117	121 117	115		99	25
E-272c-L-22	C. E., L. C. and J. E. Lillibridge, Well 1, NW. of Corona; 500 feet SW. of Rincon St., 800 feet NW. of Smith St. Use: Irrigation. Bailey No. 3723C.	15900D	540	x-----	(e) (e)	9/20/31 11/24/31	154 152		39 37	333 326 329	213 224 210	103 111 104		126 127 126	24 29 26
E-273d-L-22	C. E., L. C. and J. E. Lillibridge, Well 5, NW. of Corona; 1,100 feet SW. of Rincon St., 900 feet SE. of Croydon St., 0.67 mile NW. of intersection of Smith St. and A. T. & S. F. Ry. Use: Irrigation. Gravel 0-48. Bailey No. 3722A.	15900E	527	*x48	(e) (e)	9/20/31 11/24/31	194 192 190		33 34	491 257 491	244 247 280	64 257 98		175 166	40 43 140
E-272e-L-22	C. E., L. C. and J. E. Lillibridge, Well 6, NW. of Corona; 700 feet N. of A. T. & S. F. Ry., 2,900 feet W. of Smith St., 600 feet W. of barn. Use: Irrigation. Gravel 18-100. Bailey No. 3722C.	15900F	529	*x100	(e) (e)	9/20/31 11/24/31	134 135 123		35 38 34	308 302 287	167 171 145	115 120 115		116 114 101	25 23 28
E-272f-L-22	C. E., L. C. and J. E. Lillibridge, Well 3, NW. of Corona; 900 feet N. of A. T. & S. F. Ry., 0.30 mile NW. of intersection of Rincon and Smith Sts., 1,000 feet SW. of Rincon St. Use: Irrigation. Gravel 18-70. Bailey No. 3722D.	15900G	537	*x125	(e) (e)	9/20/31 11/24/31	159 156 150		36 36	348 336	231 227 210	104 101		133 116	20 34 110
E-272g-L-22	C. E., L. C. and J. E. Lillibridge, Well 2, NW. of Corona; 800 feet N. of A. T. & S. F. Ry., 0.27 mile NW. of intersection of Rincon and Smith Sts. Use: Irrigation. Gravel 24-63. Bailey No. 3722E.	15900H	537	*x68	(e) (e)	9/20/31 11/24/31	148 142 144		37	330	202 192 192	106		108	34
E-272j-L-22	C. E., L. C. and J. E. Lillibridge, Well 4-A, NW. of Corona; 100 feet N. of A. T. & S. F. Ry., 0.30 mile W. of Smith St., 10 feet W. of E-272a-L-22. Use: Irrigation. Casing: 15 inches. Gravel 18-100. Bailey No. 3722F.	15900I	535	*x150	(e) (e)	9/20/31 11/24/31	118 118 117		34 37	278 293	128 131 125	122 115		101 96	25 24 b90
E-273a-L-22	Robert McClintock. W. of Corona; 800 feet W. of Smith Ave., 0.30 mile N. of 6th St., 1,000 feet NE. of State Highway. Use: Irrigation. Casing: 16 inches. Bailey No. 3727B.	15901A	662	x217	(e) (e)	9/22/31 10/2/31 11/25/31	81 84 84		23 27	198 198	68 68 66	122 124		79 79	24 20 b48
E-274c-L-22	W. W. Nickle. NW. of Corona; 100 feet SW. of Railroad St., 700 feet SE. of Smith St. Use: Domestic. Casing: 3' x 4', dug well. Bailey No. 3723K.	15910D	502	x79	(e) (e)	12/19/31 7/28/32 9/1/32 10/2/32 10/29/32 12/3/32 1/5/33 2/6/33	98 88 88 88 88 87 88 87	0.16 0.15 0.20 0.19 0.18 0.14 0.14	35 38 38 38	232 232 232 229 229 235 229	96 94 92 92 89 89 91	98 108 98 92 107 91		78 79 79 77	20 22 22 22 78
E-274d-L-22	North Corona Land Co. NW. of Corona; 0.25 mile NE. of Rincon St., 300 feet E. of Smith St., extended. South well. Use: Irrigation. Bailey No. 3723B.	15910E	546	125	(e) (e)	9/20/31 9/30/31 11/25/31	250 234 196		31 32	745 479	389 394 316	64 92		236 184	56 41 b173
E-274e-L-22	L. F. Robinson. N. of Corona; 0.12 mile NE. of Rincon St., 25 feet NW. of a dirt road which is 900 feet NW. of Smith St. Use: Irrigation. Bailey No. 3723N.	15910F	538	80	(e)	11/25/31	190		35	540	277	84		170	42 b147
E-275e-L-22	A. F. Call Estate Pump 67. NW. of Corona; 100 feet E. of Sherman St., 1,055 feet S. of Railroad Ave., 25 feet N. of the south well (Bailey No. 3726B or E-275-L-22). Use: Irrigation. Casing: 12 inches in bottom of 100-foot pit.	15911E	628		(e) (e) (e) (e) (e) (e)	Sept. 1918 3/26/25 6/23/25 8/25/25 12/7/27 9/22/31 11/28/31			40 39 34 29 32 31 37	250 250 253 247 244 238 238	141 122 114 111 114 114 114	131 126 124 114 124 119 117	10	87 97 95 96 94 89 88	26 23 22 24 24 26 20
E-276-L-22	Corona Foothill Lemon Co. Corona; 50 feet W. of Lincoln Ave., 400 feet N. of W. 6th St. Use: Irrigation. Casing: 16 inches. Perforated 150-156; 162-201. Bailey No. 3726G.	15912	678	*x204	(e) (e)	9/13/31 10/2/31 11/28/31	92 91 96		31 16	194 189	103 124	122 87		86 98	20 26 b31
E-276e-L-22	Jamison Estate. SW. of Corona; 50 feet W. of Lincoln Ave., 0.29 mile S. of Olive St. Use: Irrigation. Bailey No. 3735A.	15913	707	*x376	(e) (e)	9/13/31 10/2/31 11/28/31	95 96 94		23 18	229 259	78 85	158 118		94 97	29 32 b37
E-277a-M-22	First Trust & Savings Bank of Pasadena. SW. of Corona; 0.45 mile S. of Ontario Ave., 50 feet E. of Manglar Ave. Use: Irrigation. Bailey No. 473A.	15904	950	*400	(d) (e)	11/19/31 11/20/31	114		7	296	28 29	301		132	55 b17



TABLE 19. WELLS IN TENESCAL AREA Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>-3</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 (Ca + Mg + Na)	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
E-277b-M-22	Harry Whitcomb, SW. of Corona; 0.60 mile S. of Ontario Ave., 250 feet W. of Manglar Ave. North well. Use: Irrigation. Bailey No. 473B.	15904A	969	x-----	(*)	11/20/31	131	---	16	253	36	407	---	113	70	b50
E-278-M-22	Hillcrest Ranch, S. of Corona; 0.15 mile SW. of Hill St., 0.20 mile E. of Lincoln Ave. Use: Irrigation. Bailey No. 4711A.	15916	1,150	*390	(*)	11/20/31	115	---	15	210	60	299	---	125	41	b39
E-279b-L-22	Stearns Ranch, NW. of Corona; 60 feet SE. of Goodwin St., 80 feet SW. of Harrington St. Use: Irrigation. Bailey No. 3723F.	15920B	562	95	(*)	9/20/31	182	---	32	345	295	109	---	156	39	b118
					(*)	9/30/31	188	---	---	---	297	---	---	---	---	---
					(*)	11/24/31	177	---	37	342	295	106	---	153	30	b137
E-279c-L-22	Mr. Harris, NW. of Corona; 300 feet SW. of Rincon St., 200 feet SE. of Goodwin St., extended. Use: Irrigation. Bailey No. 3723J.	15920C	555	60	(*)	9/20/31	177	---	40	339	277	116	---	144	27	b145
E-280-L-22	Corona Heights Water Co., Hazard Well 2, NW. of Corona; 825 feet E. of Railroad St., 345 feet NE. of A. T. & S. F. Ry., 960 feet NW. of Cota St. Use: Irrigation. Casing: 12 inches. Bailey No. 3724Y.	15921A	571	x100	(*)	June 1930	---	---	---	366	320	---	---	---	---	---
					(*)	9/22/31	176	---	---	---	277	---	---	---	---	---
					(*)	10/5/31	178	---	---	---	280	---	---	---	---	---
					(*)	12/18/31	176	---	41	348	---	109	---	134	31	b149
E-280a-L-22	Corona Heights Water Co., Hazard Well 1, NW. of Corona; 510 feet NE. of Railroad St., 970 feet NW. of Cota St., 30 feet NE. of A. T. & S. F. Ry. Use: Not used since 1920. Gravel 20-60. Bailey No. 3725A.	15921A	585	*60	(*)	Sept. 1918	---	---	53	192	176	109	12	73	28	b154
					(*)	Sept. 1918	---	---	25	217	30	369	4	121	35	b170
E-280c-L-22	George Shepard, NW. of Corona; 100 feet N. of Railroad St., 300 feet SE. of Buena Vista St. Use: Abandoned, formerly irrigation and domestic. Bailey No. 3725D.	15921E	594	*x85	(*)	9/22/31	149	---	36	332	217	104	---	124	32	b112
					(*)	10/5/31	152	---	35	332	217	109	---	126	32	b112
E-281-L-22	B. Chapin, N. of Corona; 125 feet W. of Hammer Ave., 400 feet N. of intersection of Cota St. and Hammer Ave. Use: Domestic. Casing: 12 inches. Bailey No. 3724G.	15930	577	x54	(*)	9/30/31	94	---	41	162	163	46	---	51	27	b76
					(*)	11/19/31	94	---	---	---	158	---	---	---	---	---
E-281a-L-22	A. S. Miller, N. of Corona; 150 feet SW. of River St., 0.13 mile NW. of intersection of River St. and Hammer Ave. Use: Domestic. Bailey No. 3724S.	15930A	584	x80	(*)	9/20/31	206	---	33	433	327	127	---	177	47	b142
					(*)	9/30/31	200	---	---	---	327	---	---	---	---	---
					(*)	11/19/31	207	---	---	---	331	---	---	---	---	---
E-281d-L-22	Mr. Irwin, N. of Corona; 30 feet NE. of Abundale Road (River St.), 0.10 mile SE. of Cota St. Use: Irrigation. Bailey No. 3724P.	15930D	581	x120	(*)	9/20/31	199	---	33	406	323	114	---	174	41	b138
					(*)	9/30/31	194	---	---	---	323	---	---	---	---	---
E-281e-L-22	G. F. Major, N. of Corona; 200 feet SW. of Abundale Road (River St.), 0.15 mile NW. of intersection of Abundale Road (River St.) and Hammer Ave. Use: Domestic. Casing: 8 inches. Bailey No. 3724H.	15930E	583	x100	(*)	9/20/31	208	---	---	---	329	---	---	---	---	---
					(*)	9/30/31	205	---	---	---	332	---	---	---	---	---
					(*)	11/19/31	204	---	---	---	327	---	---	---	---	---
E-281f-L-22	Orange Heights Water Co., Well 1-B, N. of Corona; 50 feet E. of Hammer Ave., 400 feet N. of Abundale Road (River St.), 80 feet N. of Well 1-A. Use: Irrigation. Bailey No. 3724T.	15930F	587	x162	(*)	11/28/31	177	---	35	354	284	115	---	148	37	b132
E-281j-L-22	George Baer, N. of Corona; 150 feet W. of Cota St., 0.20 mile S. of intersection of Cota St. and Abundale Road (River St.). Use: Irrigation and domestic. Bailey No. 3724W.	15930J	580	x-----	(*)	9/20/31	196	---	---	---	315	---	---	---	---	---
					(*)	9/30/31	194	---	---	---	316	---	---	---	---	---
					(*)	11/24/31	193	---	32	384	314	122	---	175	40	b129
E-281k-L-22	W. DeWitt, N. of Corona; 0.22 mile SE. of Goodwin St., 175 feet NE. of Abundale Road (River St.). Use: Domestic and irrigation. Casing: 7 inches. Bailey No. 3724A.A.	15930K	565	70	(*)	9/22/31	79	---	39	156	124	46	---	59	16	b63
					(*)	9/30/31	77	---	---	---	121	---	---	---	---	---
					(*)	11/24/31	80	---	46	150	125	43	---	53	13	b72
E-281l-L-22	Ed. Curry, N. of Corona; 25 feet NE. of Joy St., 0.21 mile SE. of Goodwin St. Use: Domestic and irrigation. Bailey No. 3724D.	15930L	584	x70	(*)	9/30/31	65	---	---	---	103	---	---	---	---	---
					(*)	11/20/31	69	---	38	103	100	---	---	---	---	---
E-282-L-22	Atholton, Topack & Santa Fe Ry., Corona Well 2, Corona; 530 feet E. of Main St., 80 feet N. of A. T. & S. F. Ry. main track. Use: Boiler feed and domestic. Casing: 15 inches.	15931	606	x167	(*)	2/10/16	---	---	---	---	372	107	10	112	35	b117
E-282a-L-22	Corona Foothill Lemon Co., Well 1, Corona; 175 feet W. of Merrill St., 128 feet N. of 3d St., 60 feet W. of Well 2. Use: Irrigation. Gravel 97-160. Samples are all composite of Wells 1 and 2.	15931A	---	*165	(*)	6/7/16	---	---	---	---	161	---	26	---	---	---
					(*)	Aug. 1918	---	---	43	268	140	149	---	85	29	b114
					(*)	April 1919	---	---	33	200	141	135	13	112	28	b91
					(*)	1923	---	---	---	268	114	---	---	---	---	---
E-282c-L-22	Corona Foothill Lemon Co., Well 3, Corona; 175 feet W. of Merrill St., 128 feet N. of 3d St. Westerly well of three. Use: Irrigation and domestic. Casing: 15 inches. Gravel 90-146. Bailey No. 3725G.	15931C	634	*x167	(*)	9/13/31	115	---	40	256	105	192	---	100	25	b94
					(*)	10/2/31	109	---	36	271	105	151	---	96	24	b88
					(*)	11/19/31	111	---	34	253	110	143	---	93	23	b80



TABLE 19. WELLS IN TEMESCAL AREA

Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate (HCO <sub>3</sub> )	Chloride (Cl)	Sulfate (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
E-282d-L-22	Orange Heights Water Co., Plant 1-A. N. of Corona; 50 feet E. of Hamner Ave., 320 feet N. of intersection of Hamner Ave. and Auburndale Road (River St.). Use: Irrigation. Casing: 26 inches. Gravel 0-162. Bailey No. 3724U.	15031D	586	162	(1)	4/4/25	---	---	38	326	331	104	---	155	32	b145
					(1)	5/25/25	---	---	38	342	335	102	---	157	33	b151
					(1)	8/31/25	---	---	38	320	322	101	---	143	36	b144
					(1)	10/3/30	---	---	40	366	309	119	---	150	35	b156
					(1)	9/20/31	186	---	37	366	295	122	---	149	38	b143
E-282h-L-22	Mr. Milese. N. of Corona; 500 feet W. of Hamner Ave., 0.12 mile S. of intersection of Auburndale Road (River St.) and Hamner Ave. Use: Irrigation. Gravel 20-90. Bailey No. 3725B.	15031H	582	*x90	(1)	12/18/31	185	---	37	375	291	120	---	154	35	b143
E-285-M-22	Ganahl Estate. S. of Corona; 10 feet N. of Main St., 0.60 mile S. of Hill St. Use: Irrigation. Bailey No. 4714A.	15027	1,336	*x60	(1)	10/5/31	136	---	9	473	32	445	---	130	118	b36
					(1)	11/20/31	158	---	---	---	---	---	---	---	---	---
E-286-L-22	Exchange Lemon Products Co., Corona; 200 feet N. of A. T. & S. F. Ry. main track, 135 feet E. of Joy St. Use: Industrial. Gravel 20-66. Bailey No. 3725F.	15041	606	*x66	(1)	4/4/25	---	---	38	323	319	103	---	150	33	b141
					(1)	5/25/25	---	---	39	296	318	104	---	144	30	b144
					(1)	8/25/25	---	---	37	299	305	103	---	144	32	b133
					(1)	12/7/27	---	---	39	329	344	112	---	154	36	b155
					(1)	9/20/31	171	---	40	335	267	111	---	128	34	b140
					(1)	9/30/31	169	---	42	314	266	115	---	122	32	b144
					(1)	11/19/31	173	---	42	320	267	113	---	122	32	b146
E-286a-L-22	Mr. Evans. N. of Corona; 50 feet E. of Joy St., 0.47 mile N. of A. T. & S. F. Ry. Use: Irrigation. Bailey No. 3724X.	15041A	503	x80	(1)	9/20/31	178	---	40	320	288	118	---	136	33	b144
					(1)	9/30/31	175	---	42	311	286	118	---	137	27	b151
					(1)	11/19/31	178	---	37	326	284	117	---	140	35	b134
E-286b-L-22	J. W. Campbell. N. of Corona; 30 feet E. of Joy St., 0.26 mile N. of A. T. & S. F. Ry. Use: Irrigation. Casing: 12 inches. Bailey No. 3725C.	15041B	505	x115	(1)	9/20/31	227	---	58	598	327	125	---	202	51	b167
					(1)	9/30/31	190	---	25	332	279	122	---	193	27	b161
					(1)	11/19/31	181	---	45	305	279	208	---	139	32	b184
					(1)	12/15/32	165	0.34	---	---	---	---	---	---	---	---
E-286c-L-23	C. C. Parkridge. NE. of Corona; 1,150 feet N. of A. T. & S. F. Ry., 2,000 feet E. of Joy St., 600 feet S. of Parkridge Tennis Courts. Use: Irrigation. Bailey No. 3630A.	15051	608	x78	(1)	12/21/31	172	---	48	250	305	129	---	87	44	b170
E-286e-L-22	Fred Dixon. N. of Corona; 250 feet NE. of Joy St., 0.18 mile SE. of intersection of Hamner Ave. and Joy St. Use: Domestic. Casing: 10 inches. Bailey No. 3724Q.	15040	603	100	(1)	9/20/31	121	---	---	---	174	---	---	---	---	---
					(1)	9/30/31	121	---	39	217	178	101	---	89	25	b165
					(1)	11/19/31	124	---	37	226	188	86	---	95	25	b161
E-287-L-23	City of Corona. Corona; 600 feet N. of 6th St., 500 feet E. of Grand Blvd., 70 feet S. and 95 feet E. of NW corner of city park. Use: Irrigation and domestic. Casing: 12 inches. Bailey No. 3630B.	15042	657	*x150	(1)	12/19/31	107	---	38	299	103	121	---	91	22	b161
E-287a-L-22	Temescal Water Co., Corona; 45 feet N. of 3d St., 125 feet E. of Joy St. Use: Domestic. Casing: 16 inches. Gravel 78-203. Bailey No. 3725I.	15042A	643	*x221	(1)	9/20/31	127	---	32	308	146	111	---	108	29	b184
					(1)	9/30/31	127	---	36	305	153	100	---	104	25	b194
					(1)	11/19/31	128	---	32	296	82	192	---	104	29	b181
E-287c-L-23	J. Wightman. E. of Corona; 30 feet N. of Commercial St. at angle, 700 feet E. of Rimpau St., 0.51 mile E. of Grand Blvd. Use: Domestic. Casing: 7 inches. Bailey No. 3630L.	15052	659	x06	(1)	12/18/31	115	---	32	296	82	192	---	104	29	b181
E-287e-L-23	Temescal Water Co., Call Well. SE. of Corona; 0.20 mile E. of Rimpau Ave., 0.18 mile S. of intersection of Magnolia and Rimpau Avenue. Use: Irrigation. Bailey No. 3631A.	15053	727	x-----	(1)	9/20/31	111	---	24	259	96	161	---	108	29	b157
					(1)	12/18/31	101	---	29	256	82	151	---	96	25	b164
E-287f-L-23	Kuster and Waterbury. E. of Corona; 200 feet S. of Sampson St., 0.23 mile E. of Rimpau Ave., 20 feet E. of stock bins at gravel pit. Use: Washing gravel. Gravel 31-92. Bailey No. 3630X.	15052B	630	*02	(1)	9/23/31	159	---	---	---	242	---	---	---	---	---
					(1)	10/2/31	154	---	---	---	234	---	---	---	---	---
					(1)	11/19/31	157	---	---	---	224	---	---	---	---	---
E-291d-L-23	W. H. Jamison. E. of Corona; 130 feet N. of 6th St., 0.62 mile E. of Porphyry Spur of A. T. & S. F. Ry. Use: Irrigation. Casing: 1 1/2 inches. Perforated 55 70, 90 126, 140 160. Bailey No. 3629C.	15072A	651	*170	(1)	10/2/31	121	---	39	302	153	91	---	96	24	b100
					(1)	11/19/31	126	---	---	---	---	---	---	---	---	---
E-291e-L-23	Kuster and Waterbury. E. of Corona; 250 feet S. of 6th St., 400 feet W. of A. T. & S. F. Ry branch line to Elsinore. Use: Irrigation. Bailey No. 3629D.	15062A	634	x-----	(1)	12/19/31	157	---	45	339	245	102	---	115	27	b152
E-291f-L-23	W. H. Jamison. E. of Corona; 0.37 mile SE. of Magnolia Ave., 60 feet E. of dirt road which is 0.15 mile SW. of intersection of 6th St. and Magnolia Ave. Use: Irrigation; domestic and stock. Gravel 30-80. Bailey No. 3632A.	15072B	663	*90	(1)	9/23/31	92	---	34	293	82	78	---	73	26	b167
					(1)	10/2/31	94	---	35	290	85	76	---	72	25	b170
					(1)	11/19/31	94	---	---	---	---	---	---	---	---	---



TABLE 19. WELLS IN TEMESCAL AREA—Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)					
										Bicarbonate (HCO <sub>3</sub> )	Chloride (Cl)	Sulfate (SO <sub>4</sub> )	Nitrate (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)
F-292a-M-23	R. H. Verity, Sons & Co. SE. of Corona; 0.5 mile SE. of Porphyry Road, 600 feet NE. of Ontario Ave. Use: Irrigation. Bailey No. 468A.	15975	880	*180	(*) (*)	10/12/31 12/19/31	120 153	—	35	302	124 155	180	—	137	27
F-294b-L-23	W. H. Rapson. E. of Corona; 1,420 feet SE. of Magnolia Ave., 650 feet NE. of Johnson St. Use: Irrigation. Casing, 16 inches. Perforated 92' 10"; 140' 10", 169' 17", 191' 20".	15991	695	*218	(*) 296	April 1930 9/15/31	89 1	0.23	44	330 323	98 76	79	21	66	27
F-294d-L-24	Sherman Indian Institute. E. of Corona; 0.25 mile SE. of Magnolia Ave., 300 feet SW. of Lincoln St. Use: Domestic. Bailey No. 3627A.	15991B	716	x180	(*) 706	10/ 2/31 11/19/31 2/12/32	82 85 77.0	—	44	268 277	60 64 64	69	—	54	20
F-294e-L-23	Riverside Valley Home Gardens Tract. E. of Corona; 125 feet NW. of Magnolia Ave., 30 feet SW. of Grant St. Use: Irrigation and domestic. Casing: 8 inches. Bailey No. 3628D.	15981A	667	x200	(*) (*)	10/ 2/31 11/19/31	134 138	—	39	311	181 181	95	—	116	23
F-295-L-23	Glass and Tutthill. E. of Corona; 80 feet SW. of Grant St., 0.15 mile SE. of Magnolia Ave. Use: Irrigation. Bailey No. 3628E.	15982	671	x200	(*) (*)	10/ 2/31 11/19/31	90 92	—	41 43	326 329	60 57	74 69	—	68 63	20 20
F-296-M-23	Temescal Water Co. SE. of Corona; 3,500 feet NE. of State Highway, 250 feet W. of A. T. & S. F. Ry., 300 feet SE. of Lemon St., on W. edge of Temescal Wash. Use: Irrigation. Gravel 3-50. Bailey No. 469A.	15985	742	*x70	(*) (*)	10/ 5/31 12/15/31	109 111	—	29 24	281 275	53 50	281 248	—	117 109	28 35
F-297a-M-23	Temescal Water Co. SE. of Corona; 2.0 mile SE. of Porphyry Ave., 200 feet NE. of State Highway. Use: Irrigation. Bailey No. 4616A.	15989	850	—	(*) (*)	10/12/31 12/18/31	111 111	—	29	262	52 50	262	—	107	31
F-310-M-25	Mrs. I. Sahm. S. of Riverside; 75 feet E. and 140 feet N. of center of NE. $\frac{1}{4}$ Sec. 6, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation and domestic.	16004	1,325	—	(*)	July 1930	—	—	—	134	284	—	—	—	—
F-310a-M-25	A. L. Gabrielson. S. of Riverside; 285 feet W. and 315 feet N. of center of NE. $\frac{1}{4}$ Sec. 6, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Domestic and irrigation.	16004A	1,325	—	(*)	July 1926	—	—	—	92	142	—	—	—	—
F-310b-M-25	Mr. Hogarth. S. of Riverside; 80 feet W. and 230 feet S. of NE. corner, Sec. 7, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Domestic and irrigation.	16005	1,320	—	(*)	May 1928	—	—	23	160	36	51	—	34	22
F-310c-M-25	Isaac Stump. S. of Riverside; 640 feet E. and 320 feet S. of the NW. corner of SW. $\frac{1}{4}$ of NW. $\frac{1}{4}$ Sec. 8, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation and domestic. Casing: 4' x 4' dug well.	16005A	1,290	20	(*)	May 1928	—	—	59	335	578	280	—	160	42
F-310d-M-25	H. E. Miller. S. of Riverside; 66 feet E. and 6 feet N. of NW. property corner at center of NE. $\frac{1}{4}$ Sec. 7, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation. Dug well.	16005B	1,295	50	(*)	Dec. 1927	—	—	—	152	320	—	—	—	—
F-310e-M-25	Honeywell Ranch. S. of Riverside; 60 feet W. and 15 feet N. of the NE. corner of SE. $\frac{1}{4}$ of SW. $\frac{1}{4}$ of NW. $\frac{1}{4}$ Sec. 8, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation and domestic.	16005C	1,295	24	(*)	May 1928	—	—	54	332	340	329	—	96	66
F-317-M-25	Frank Gonzalez. S. of Riverside; 185 feet S. and 115 feet W. of NE. corner of SE. $\frac{1}{4}$ of SW. $\frac{1}{4}$ of NW. $\frac{1}{4}$ Sec. 8, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation and domestic.	16006	1,300	41	(*)	May 1928	—	—	49	225	100	38	—	52	14
F-317a-M-25	A. F. Patterson. S. of Riverside; 1,010 feet W. and 235 feet N. of E. $\frac{1}{4}$ corner, Sec. 7, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation and domestic. Casing 4 feet diameter, dug well.	16006A	1,285	19	(*)	Nov. 1927	—	—	—	150	116	—	—	—	—
F-317b-M-25	T. M. Fraser. S. of Riverside; 25 feet W. and 360 feet N. of the center of Sec. 8, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation and domestic.	16076	1,305	50	(*)	Oct. 1927	—	—	—	202	400	—	—	—	—
F-317c-M-25	Mrs. Wm. Marder, Well 1. S. of Riverside; 1,045 feet E. and 300 feet S. of NE. corner of SW. $\frac{1}{4}$ of SW. $\frac{1}{4}$ Sec. 17, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation and domestic.	16077	—	60	(*)	Sept. 1926	—	—	—	160	64	—	—	—	—



TABLE 19. WELLS IN TEMESCAL AREA—Continued

Well number	Location and description	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 (Ca + Mg + Na)	Constituents (parts per million)						
									Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
E 3174 M 25	Mrs. Wm. Marder, Well 2. S. of Riverside; 345 feet E. and 250 feet S. of the NE. corner of SW. 1/4 of SW. 1/4 of Sec. 17, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Domestic and irrigation.	1,377A	47	(*)	Mar. 1928				164	35					
E 322 M 25	Miner Lewis. S. of Riverside; 765 feet N. and 83 feet E. of the SW. corner of Sec. 9, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation and domestic. Casing: 4' x 4' dug well. 60 feet of decomposed granite, bottom 20 feet shot.	1,385	*60	(*)	May 1928			39	160	45	42		30	18	143
E 322A M 25	John Taylor. S. of Riverside; 150 feet S. and 1,260 feet E. of center of Sec. 9, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation.	1,370	20	(*)	April 1928				250	990					
E 322B M 25	Mrs. Hawkins. S. of Riverside; 725 feet S. and 650 feet E. of center of Sec. 9, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation and domestic.	1,350	73	(*)	April 1928			47	314	425	253		116	83	258
E 322 M 25	Cajalco School. S. of Riverside; on N. and S. center line of Sec. 9, T. 4 S., R. 5 W., S. B. & M., 900 feet S. of E. and W. center line of Sec. 9, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation and domestic. Dug well.	1,355	32	(*)	May 1928			54	347	476	168		74	40	185
E 322A M 25	Mr. Holthier. S. of Riverside; 820 feet S. and 200 feet W. of the center of Sec. 9, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation.	1,360	50	(*)	May 1928			53	418	630	332		140	92	1375
E 322B M 25	Ben Yan Dell. S. of Riverside; 830 feet S. and 380 feet W. of the center of Sec. 9, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation.	1,360	35	(*)	May 1928			76	353	345					
E 326 M 26	H. Peters. S. of Riverside; 750 feet E. and 350 feet S. of the SE. corner of NE. 1/4 of NW. 1/4 of Sec. 10, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation.	1,400		(*)	June 1926				580	390	160		46	27	335
E 326A M 26	E. B. White. S. of Riverside; 145 feet W. and 160 feet N. of SE. corner of NE. 1/4 of NW. 1/4 of Sec. 10, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation. Casing: 4 feet diameter, concrete. Dug well.	1,395	25	(*)	June 1930				510	745					
E 326B M 26	E. B. White. S. of Riverside; 115 feet W. and 180 feet N. of SE. corner of NE. 1/4 of NW. 1/4 of Sec. 10, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Abandoned.	1,395		(*)	Oct. 1927			21	256	67	40		42	27	126
E 327 M 26	G. H. George. S. of Riverside; 410 feet N. and 340 feet W. of the center of Sec. 10, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation.	1,400		(*)	May 1928			39	192	107	53		52	23	166
E 332 M 26	R. H. Kirkpatrick. S. of Riverside; 115 feet W. and 50 feet N. of the SE. corner of SW. 1/4 of NE. 1/4 of SW. 1/4 of Sec. 11, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation. Casing: 3' x 4' dug well with two 3' x 5 1/2' tunnels, 10 feet long, E. and W.	1,470	32	(*)	June 1927			50	207	437	390				
E 332A M 26	Willis Porter. S. of Riverside; 340 feet S. and 425 feet W. of the center of Sec. 11, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation.	1,445	24	(*)	Aug. 1927			59	201	60	90		40	18	180
E 332B M 26	W. H. Wells. S. of Riverside; 200 feet W. and 30 feet N. of the SE. corner of NE. 1/4 of SW. 1/4 of Sec. 11, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation.	1,495	55	(*)	4/20/26				220	81					
E 342 M 26	A. D. Randall. S. of Riverside; 20 feet W. and 955 feet S. of E. 1/4 corner of Sec. 11, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation. Casing: 4 feet diameter, dug well.	1,475	13	(*)	Aug. 1930			59	177	485	127		110	27	250
E 337 M 27	Wisor and Mosgrove. S. of Riverside; 700 feet S. and 200 feet W. of the center of Sec. 7, T. 4 S., R. 4 W., S. B. & M. In Cajalco Canyon. Use: Domestic and irrigation.	1,551		(*)	4/3/33	212	0.08	40	262	475	136	27	175	50	193



TABLE 19. WELLS IN TEMESCAL AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Per cent sodium $\frac{Na \times 100}{Ca + Mg + Na}$	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
E-337a-M-26	Lewis Jackson, S. of Riverside; 315 feet S. and 10 feet W. of the NE. corner of NW $\frac{1}{4}$ of SE $\frac{1}{4}$ Sec. 12, T. 4 S., R. 5 W., S. B. B. & M. In Cajalco Canyon. Use: Irrigation and domestic.	16146	1,540	-----	( <sup>e</sup> ) ( <sup>e</sup> )	Nov. 1926 June 1928	-----	-----	-----	276 275	610 620	-----	-----	-----	-----	-----
E-337b-M-26	Frank M. Smith, S. of Riverside; 98 feet W. and 205 feet S. of the NW. corner of SW $\frac{1}{4}$ of SE $\frac{1}{4}$ Sec. 12, T. 4 S., R. 5 W., S. B. B. & M. In Cajalco Canyon. Use: Irrigation and domestic.	16146A	1,520	50	( <sup>e</sup> )	June 1929	-----	-----	40	195	142	190	-----	80	26	43

\* Log in files of Division of Water Resources.

x Water levels in files of Division of Water Resources.

a Includes small equivalent quantity of Carbonate (CO<sub>3</sub>).

b Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.

c Analysis by Edward S. Babcock and Sons, Riverside, California. Data from Case No. 22046 (Corona Foothill Lemon Co., a Corp., vs. C. E. Lillibridge, et al), in the Superior Court of the State of California, in and for the County of Riverside.

d Analysis by Association Laboratory, Anaheim, California. Data from Case No. 22046 (Corona Foothill Lemon Co., a Corp., vs. C. E. Lillibridge, et al), in the Superior Court of the State of California, in and for the County of Riverside.

e Analysis by University of California, Graduate School of Tropical Agriculture and Citrus Experiment Station, Riverside, California.

f Analysis by Edward S. Babcock and Sons, Riverside, California.

g Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.



TABLE 20. WELLS IN SANTA ANA-IRVINE AREA

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)					
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)
C-105a M-17	Santa Ana Valley Irrigation Co., Well 8, W. of Olive; 100 feet W. of Batavia St., 700 feet S. of Anaheim-Olive Blvd. Use: Irrigation. Casing: 24 inches.	15636B	202	-----	335	9/19/31	62.6	0.09	33	232	46	62	4	62	16
C-1106a-M-17	Batavia Water Co., SW. of Olive; 1,000 feet S. of Fletcher Ave., 1,300 feet E. of Batavia St. Use: Irrigation. Casing: 16 inches. Perforated 120-143; 185-187; 195-196; 205-221; 241-250; 280-295-307.	15047	165	*x311	268	8/27/31	60.8	-----	28	244	39	53	7	66	17
C-1108-N-17	Citrus Well Association. Villa Park; 300 feet S. of Villa Park Road, 15 feet W. of Wanda Ave. along W. side of S. P. R. R. Use: Domestic.	15679	300	x550	(d)	Oct. 1918	-----	-----	25	*231	62	154	11	92	21
C-1109-N-18	Villa Park Mutual Water Co., Gray Tract Plant 1. Villa Park; 660 feet N. of Lincoln St., 900 feet W. of Center Drive. Use: Domestic and irrigation. Casing: 20 inches. Gravel 230-242; 259-264; 268-275; 290-301; 320-327; 334-337; 343-365; 384-398; 424-432; 440-458; 466-476; 480-494; 498-506; 520-542; 558-568.	15659	320	*x576	(d) (d)	Oct. 1918 June 1927	-----	0.21	29 21	*213 216	27 32	114 130	4	65 70	19 25
C-1109a-N-18	Villa Park Mutual Water Co., Plant 5. Villa Park; 1,630 feet E. of Center Drive, 1,360 feet S. of Villa Park Road. Use: Domestic and irrigation. Casing: 18 inches. Gravel 207-286; 319-326; 351-362; 362-389; 411-419; about 470; about 512.	15699	335	*542	(d) (d) (d)	Oct. 1918 July 1919 June 1928	-----	-----	25 28 14	*262 229 253	39 50 31	177 68 200	8 7	86 72 90	29 16 44
C-1109e-N-18	Villa Park Well Co., Villa Park; 35 feet W. of Sycamore St., 360 feet S. of Serrano Ave. Use: Irrigation. Casing: 20 inches.	15698	395	240	(d)	Oct. 1918	-----	-----	41	*328	67	226	8	76	39
C-1109g-N-18	John T. Carpenter Water Co., Well 1. NE. of Orange; 350 feet E. of Alameda St., 380 feet N. of Collins Ave., extended. Use: Abandoned in 1925, formerly irrigation.	15699A	330	473	(d)	Oct. 1918	-----	-----	38	*262	31	173	8	81	15
C-1109h-N-18	John T. Carpenter Water Co., Well 2. NE. of Orange; 375 feet E. of Alameda St., 370 feet N. of Collins Ave., extended. Use: Irrigation.	15699B	330	410	(d)	Oct. 1918	-----	-----	26	*234	33	172	9	84	27
C-1110-N-18	Villa Park Mutual Water Co., Gray Tract Plant 2. Villa Park; 60 feet N. of Lincoln St., 1,240 feet W. of Center Drive. Use: Irrigation.	15689A	317	480	(d)	Oct. 1918	-----	-----	24	*244	35	176	10	84	29
C-1112-N-18	Santa Ana Valley Irrigation Co., Well 9. E. of Orange; 0.15 mile N. of Walnut Ave., 400 feet E. of Prospect Ave. Use: Irrigation. Casing: 26 inches.	14580A	290	x1,106	263	8/27/31	61.9	-----	31	*217	27	98	4	62	19
C-1113-N-17	David Hewes Mutual Water Co., E. of Orange; 0.12 mile W. of Prospect Ave., 0.25 mile S. of Chapman Ave. Use: Irrigation. Casing: 18 inches. Gravel 132-140; 150-204; 234-238; 270-290; 380-430.	14571	251	*x430	(d) (d)	Nov. 1918 Mar. 1930	-----	-----	24 59	256 231	33 60	160 275	0	84 50	27 25
C-1115-O-18	A. M. Robinson. NE. of Santa Ana; 0.25 mile E. of Prospect Ave., 20 feet S. of Fairhaven Ave. Use: Not used since 1929. Casing: 24 inches.	14582	220	x350	(d)	Nov. 1918	-----	-----	35	223	45	79	1	58	17
C-1150d-N-17	Santa Ana Valley Irrigation Co., Well 12. Orange; 0.28 mile N. of Fairhaven Ave., 150 feet E. of Cambridge St. Use: Irrigation. Casing: 26 inches.	14552B	206	x800	260	8/27/31	49.6	-----	34	204	20	58	4	51	13
C-1150e-N-17	City of Orange, Well 5. Orange; 100 feet N. of Almond Ave., 100 feet E. of Water St. Use: Municipal. Gravel 65-75; 117-133; 156-163; 181-183; 195-201; 231-239; 251-265; 277-297; 301-323; 441-459; 520-527; 619-627; 652-675; 698-723.	14551	219	*750	(e)	4/23/31	-----	-----	-----	220	50	190	-----	-----	-----
C-1151a-O-16	City of Santa Ana, Well 14. NW. of Santa Ana; 100 feet E. of Bristol St., 100 feet S. of Santiago Creek. Use: Municipal. Casing: 20 inches. Gravel 78-94; 105-125; 164-182; 246-250; 342-360; 380-396; 402-405; 417-424; 578-603; 605-622; 702-715; 756-758.	14513	120	*1,050	(e) 264 (f)	4/23/31 8/27/31 9/4/31	-----	55.5	-----	222 229 *242	35 30 35	130 51	7	65	14
C-1162h-O-16	J. H. Stewart. W. of Santa Ana; 200 feet N. of W. 5th St., 100 feet W. of King St. Use: Not used. Casing: 12 inches.	14405A	85	x-----	(f)	9/4/31	-----	-----	-----	*319	62	-----	-----	-----	-----
C-1162i-O-16	Clarence L. Nichols. W. of Santa Ana; 100 feet S. of 5th St., 600 feet W. of Sullivan St. Use: Domestic. O. C. F. C. D. Surface Water Test Well 216.	14405B	84	-----	(f) 631	9/9/31 1/19/32	107	0.25	35	*349 360	104 112	139	0	68	53



TABLE 20. WELLS IN SANTA ANA-IRVINE AREA—Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C 1164a O 16	City of Santa Ana, Well 7, Santa Ana; 50 feet S. of First St., 25 feet E. of Flower St., 25 feet N. of Well 8. Use: Municipal. Casing: 16 inches. Perforated 426-438; 885-907.	14525A	104	*x960	(e)	4/23/31				220	37	35				
C 1164b O 16	City of Santa Ana, Well 13, Santa Ana; 200 feet E. of Flower St., 75 feet N. of Walnut St., 300 feet S. of First St. Use: Municipal. Casing: 18 inches. Gravel 204-303; 324-348; 888-906.	14525B	104	*950	(c)	4/23/31				226	40	155				
C 1164d O 16	City of Santa Ana, Well 12 East, Santa Ana; 325 feet E. of Olive St., 175 feet N. of 6th St., 25 feet E. of C-1191-O-16. Use: Municipal. Casing: 16 inches. Perforated 330-368; 440-456.	14525K	113	*x466	(e)	4/23/31				214	25	145				
C 1164e O 16	City of Santa Ana, Well 15, Santa Ana; 150 feet S. of First St., 250 feet W. of Flower St. Use: Municipal. Casing: 26 inches. Perforated 214-225, 293-337; 340-350; 358-375; 470-490, 565-574; 575-642; 1030-1042.	14525*	103	*1,140	(e) 305	4/23/31 9/17/31	84.4	0.12	22	232 265	47 69	150 101	8	100	24	45
C-1165a-O-17	Atchison, Topoka & Santa Fe Ry., Santa Ana; 200 feet S. of 4th St., 50 feet E. of A. T. & S. F. Ry. Near depot. Use: Industrial. Gravel 4-70; 75-80; 130-140; 150-160; 280-300.	14545A	114	*510	265	8/27/31	87.7		20	277	69	119	14	98	33	45
C 1174a P 16	La Bolsa Tile Co. SW. of Santa Ana; 1,200 feet S. of Edinger St., 200 feet W. of Greenville Road. Use: Irrigation. Casing: 10 inches.	14497	53	150	686	2/3/32	63.5	0.18	22	235	39	74	4	78	18	36
C 1174b P 16	S. H. Manderschedel and W. R. McClintock, SW. of Santa Ana; 700 feet E. of Greenville Road, 20 feet S. of Delhi Road. Use: Irrigation and domestic. Casing: 12 inches.	14498	44	x800	686	2/3/32	44.7	0.16	35	207	14	48	1	45	13	41
C-1178a-P-17	The Irvine Co., Plant 28, Well 428, S. of Tustin; 0.22 mile NW. of Redhill Ave., 0.23 mile NE. of A. T. & S. F. Ry. Near Well 1256. Use: Irrigation. Perforated 424-432; 470-478.	14577A	92	*500	(d)	1920			30	256	28	138	4	68	19	48
C 1178d O 17	P. H. Ebel, S. of Tustin; 45 feet SW. of Mitchell Ave., 660 feet SE. of Newport Blvd. Use: Irrigation.	14576	106	200	(d)	Oct. 1918			25	243	34	140	8	81	23	46
C 1180a P 17	Owner unknown. Test hole, S. of Santa Ana; 100 feet E. of Main St., 100 feet S. of Sunflower Ave., extended. Casing: None.	13330E	34	6	(f)	12/11/30				418	4,319					
C-1191-O-16	City of Santa Ana, Well 9, Santa Ana; 300 feet E. of Olive St., 175 feet N. of 6th St. Use: Municipal. Casing: 16 inches. Perforated 910-938; 1024-1030; 1070-1090.	14525E	113	*x1,100	(e)	4/23/31				195	15	135				
C 1192 O 16	City of Santa Ana, Wells, Santa Ana; 75 feet S. of 1st St., 25 feet E. of Flower St., 25 feet S. of C-1164a-O-16. Use: Municipal. Casing: 18 inches. Perforated 100-140.	14525D	104	*x151	(e) 306	4/23/31 9/17/31	64.1	0.10	26	227 235	41 36	155 74	9	72	17	40
C-1193b-O-17	C. James Klatt, NE. of Santa Ana; 250 feet N. of 17th St., 1,050 feet W. of Yorba St. Use: Irrigation. Casing: 12 inches.	14544B	172	x496	(d)	1920			13	226	46	122	12	83	31	24
C 1193c O 17	F. G. Fuller Ranch, E. of Santa Ana; 225 feet S. of 17th St., 900 feet W. of Prospect Ave. Use: Irrigation. Casing: 10 inches.	14574C	166	220	(d)	Nov. 1918			21	232	47	118	14	81	26	38
C 1193a O 18	Lemon Heights Water Co., E. of Tustin; 1,325 feet NE. of Irvine Blvd., 250 feet SE. of Newport Ave. Use: Abandoned and filled. New well drilled two feet from this well.	14574	163		(d)	Oct. 1918			26	201	30	147	14	67	21	41
C 1205a P 16	La Bolsa Tile Co. SW. of Santa Ana; 0.5 mile E. of Greenville Road, 0.5 mile N. of Delhi Road. Use: Irrigation. Casing: 12 inches.	14507	52	1,350	683	2/3/32	35.0	0.11	91	*167	13	26	0	6	2	52
C 1205b P 16	A. E. Solvidge, SW. of Santa Ana; 540 feet E. of Greenville Road, 90 feet N. of Delhi Road. Use: Domestic. Casing: 4 inches.	14508	44	104	685	2/3/32	52.8	0.14	27	226	25	55	4	63	14	37
C 1206a P 17	F. A. Stewart, S. of Santa Ana; 75 feet W. of McClay St., 0.25 mile S. of McFadden St. Use: Domestic and irrigation. Casing: 8 inches.	14547	92	x44	308	9/17/31	154	0.09	16	320	137	362	18	189	60	62
C 1207a O 18	The Irvine Co., Plant 40, Well 1180, SE. of Tustin; 200 feet SE. of Browning Ave., 200 feet NE. of Bryant Ave. Use: Irrigation. Casing: 16 inches. Perforated 55-347.	14596A	97	*x418	(d) (e) (b)	1922 9/25/28 3 25 29			23 39	253 274 313	40 60 68	168 134 164		88 110	28 60	46 51
C 1207b O 18	F. B. Browning, E. of Tustin; 1,500 feet SE. of Red Hill Ave., 70 feet NE. of Irvine Blvd. Use: Irrigation. Casing: 12 inches. Perforated 290-600, 667-774	14605	113	*x10	270	9/3/31	110.1	0.12	27	238	160	127	13	113	32	69



Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (part-per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-1207d-O-18	The Irvine Co., Plant 45, Well 1189. E. of Tustin; 1,000 feet NE. of Irvine Blvd., 35 feet SE. of Peters Canon Road, 1,285 feet NW. of Myford Road, extended. Use: Domestic. Casing: 9 1/2 inches. Perforated 60-409.	14616	145	*469	(d) (d)	1924 Sept. 1929			53 27	341 292	107 106	255 164		80 120	32 31	*170 *71
C-1207e-O-18	The Irvine Co., Plant 46, Well 1194. SE. of Tustin; 2,500 feet SE. of Browning Ave., 2,500 feet NE. of Irvine Blvd. Use: Irrigation. Casing: 12 inches. Perforated 135-202.	14616A	62	*271	(d) (d) (s) (s) (s) (s) (s)	6/17/20 5/20/25 9/25/28 5/15/20 6/30 6/8/29		172 0 40 169 0 39 170 0 65 161 0 36	52 63 52 51 52 44 68	262 348 342 355 346 296 366	110 230 240 208 234 250 114	141 200 240 237 232 191 33	7	52 92 172 96 95 98 30	30 (?) (?) 40 41 49 16 16	*124 *275 *214 *195 *206 *161 *138
C-1207g-O-18	The Irvine Co., Plant 70, Well 1233. E. of Tustin; 2,560 feet NE. of Irvine Blvd., 1,250 feet SE. of Peters Canon Road, 70 feet NW. of Myford Road, extended. Use: Irrigation. Casing: 12 inches. Perforated 200-215; 245-275.	14626	163	*879	(d)	Aug. 1929			52	318	142	364		76	43	*186
C-1207h-O-18	The Irvine Co., Plant 71, Well 1234. E. of Tustin; 110 feet SW. of Irvine Blvd., 90 feet NW. of Peters Canon Road, 1,420 feet NW. of Myford Road. Use: Irrigation. Casing: 12 inches. Perforated 300-320; 331-930.	14616B	122	*1,007	(d)	Aug. 1929			46	275	54	140		54	26	*95
C-1207k-O-18	F. B. Browning, Red Hill Groves Well 2. E. of Tustin; 1,350 feet SE. of Red Hill Ave., 200 feet NE. of Irvine Blvd. Use: Irrigation. Casing: 15 inches.	14603B	114		(d) (d) (s)	3/19/26 June 1927 4/24/29		Tr. 0 55	26 28 26	223 225 221	92 127 155	129 134 133		86 94 116	26 30 26	*53 *65 *64
C-1207l-O-18	Perry Lewis, E. of Tustin; 1,320 feet SE. of Red Hill Ave., 1,640 feet NE. of Irvine Blvd., 1,000 feet SW. of La Colina Drive. Use: Irrigation.	14603C	143	304	(d)	Oct. 1918			33	*204	39	86	5	52	22	*50
C-1207m-O-18	Holmes Loan and Realty Co. E. of Tustin; 1,310 feet NE. of Irvine Blvd., 1,000 feet SE. of Red Hill Ave. Use: Irrigation. Casing: 18 inches.	14603D	142	300	(d) (d)	Nov. 1918 11/15/22			38 42	279 240	44 80	91 96	6 10	60 75	16 14	*69 *80
C-1207n-O-18	Holmes Loan and Realty Co. E. of Tustin; 660 feet SE. of Red Hill Ave., 100 feet SW. of 17th St. Use: Irrigation. Casing: 12 inches.	14604	175	300	(d) (d)	Oct. 1918 Nov. 1918			39 40	253 229	381 361	152 160	44 39	131 122	55 56	*166 *167
C-1208b-P-18	The Irvine Co., Plant 50, Well 1199. SE. of Tustin; 0.27 mile SE. of Browning Ave., 0.23 mile NE. of State Highway. Use: Irrigation. Casing: 20 inches. Perforated 475-1070.	14597B	87	*1,488	(d) (d) (b)	3/12/26 July 1926 3/25/29			51 40	260 256 285	36 35 100	103 83 192		44 40	16 15	*85 *50
C-1208c-P-18	The Irvine Co., Plant 1, Well 554, Pit 22. SE. of Tustin; 0.22 mile SW. of Bryant Ave., 0.51 mile NW. of Myford Road. Use: Irrigation. Casing: 15 inches. Perforated 175-186.	14607	84	*104	(d) (s) (b) (b)	7/23/20 9/25/28 2/1/29 3/25/29		134 0 2 2 18 29 3 25 29	27 30	271 299 238 317	80 110 90 98	197 264 106 244	18 39	113 188	30 (?)	70 94
C-1208g-P-18	The Irvine Co., Plant 32, Well 1154. SE. of Tustin; 250 feet SW. of Bryant Ave., 0.22 mile NW. of Myford Road. Use: Irrigation. Casing: 16 inches. Perforated 35-454.	14607D	89	*470	(d) (d) (s) (b) (b)	Dec. 1920 June 1927 9/25/28 3/25/29		0 10 0 4	47 33 44	398 305 311 371 322	117 178 128 166 112	289 555 432 230 332	28 182 432 230	128 182 198	17 65 (?)	*161 *169 *179
C-1208i-P-18	The Irvine Co., Plant 73, Well 1236. SE. of Tustin; 200 feet SE. of Myford Road, 0.2 mile SW. of Irvine Road. Use: Irrigation. Casing: 15 inches. Perforated 324-915.	14617A	118	*926	(d)	Aug. 1929			48	305	78	195		68	30	*123
C-1208j-P-18	The Irvine Co., Plant 26, Well 831. SE. of Tustin; 1,300 feet NW. of Myford Road, 100 feet SW. of State Highway 101, in Lot 40. Use: Abandoned and filled over. Casing: 15 inches. Perforated 59, 64, 200-710.	14607E	76	*905	(d)	Dec. 1920			35	275	23	110	1	46	31	*69
C-1209a-P-18	The Irvine Co., Plant 14, Well 750. SE. of Tustin; 500 feet SW. of State Highway 101, 50 feet SE. of Browning Ave. Use: Irrigation. Casing: 24 inches.	14597D	88	*250	(d) (b)	1920 3/25/29			23	277 336	85 116	298 212	17	122	33	*63
C-1210c-P-18	The Irvine Co., Plant 31, Well 720. SE. of Tustin; 3,300 feet SE. of Browning Ave., 1,800 feet NE. of A. T. & S. F. Ry. Center of Lot 55. Use: Not used. Casing: 12 inches. Perforated 180-192; 300-1260.	14508B	63	*1,288	(d)	1920			56	183	28	155	0	39	16	*97
C-1210d-P-18	The Irvine Co., Plant 33, Well 1157. SE. of Tustin; 2,720 feet SE. of Browning Ave., 2,310 feet NE. of A. T. & S. F. Ry. Use: Irrigation. Casing: 16 inches. Perforated 30-306.	14598C	66	*330	(d)	1923				240	47	100		50		



TABLE 20. WELLS IN SANTA ANA-IRVINE AREA—Continued

Well number	Location and description	Location number	Elevation of ground in feet	Total depth of well in feet	Laboratory number	Date	Specific conductance (K x 10 <sup>-3</sup> at 25°C)	Boron ppm	Per cent sodium (Na + Mg + Ca)	Constituents (parts per million)						Sodium (Na)
										Bicarbonate (HCO <sub>3</sub> )	Chloride (Cl)	Sulfate (SO <sub>4</sub> )	Nitrate (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	
C-1210c-P-18	The Irvine Co., Plant 38, Well 1178. SE. of Santa Ana; 1.05 mile SE. of Browning Ave., 2,200 feet NE. of Delhi Road. Use: Irrigation. Casing: 16 inches. Perforated 35-335, where casing collapsed.	14588A	49	*x390	(d)	1923	---	---	---	262	142	100	---	50	---	---
C-1210f-P-18	The Irvine Co., Plant 52, Well 1200. SE. of Tustin; 0.32 mile NW. of Myford Road, 0.52 mile SW. of State Highway. Use: Irrigation. Casing: 20 inches. Perforated 319-1200.	14598D	62	*x1344	(d)	July 1926	---	---	61	235	29	98	---	28	15	95
C-1210g-P-18	The Irvine Co., Plant 10, Well 691, Pit 2. S. of Tustin; 2,560 feet SE. of Browning Ave., 1,270 feet NE. of A. T. & S. F. Ry. Use: Irrigation. Casing: 15 inches. Perforated 0-86.	14588	66	*x86	(d) (b)	1920 2/18/29 3/25/29	---	---	24	256 300 305	60 62 86	261 88 212	14	120	34	63
C-1210h-P-18	The Irvine Co., Plant 29, Well 744, Pit 4. SP. of Tustin; 4,550 feet SE. of Browning Ave., 330 feet NE. of A. T. & S. F. Ry. Use: Irrigation.	14598E	59	*x31	(d) (b)	1922 2/18/29 3/25/29	---	---	58	300 332 295	75 112 110	402 304 270	0	83	46	259
C-1210i-P-17	The Irvine Co., Plant 30, Well 915. S. of Tustin; 30 feet SE. of Browning Ave., 100 feet SW. of A. T. & S. F. Ry. in N. corner of Lot 69. Use: Irrigation. Casing: 15 inches. Perforated 242-1060	14588A	69	*x1060	(d)	1920	---	---	63	213	19	96	0	30	9	87
C-1210j-P-18	Frances Mutual Water Co., Well 10. SE. of Tustin; 4,380 feet SE. of Browning Ave., 1,940 feet SW. of State Highway 101. Use: Irrigation. Casing: 20 inches. Perforated 180-220. Analyses, Feb. 1919, were sampled from depths of 1,197, 1,099, and 1,179 feet, respectively.	14598F	68	*x1526	(d) (d) (d) (d)	Feb. 1919 Feb. 1919 Feb. 1919 Nov. 1930	---	---	60 59 59 19	308 330 335 320	87 80 81 117	142 144 80 380	0 2 0	51 55 55 180	22 19 20 50	150 147 148 70
C-1210k-P-18	Frances Mutual Water Co., SE. of Tustin; Well 1, within 50 feet of Well 10 or C-1210j-P-18. Use: Abandoned and filled in when Well 10 was drilled.	14598G	68	100	(d)	Aug. 1918	---	---	34	259	67	172	4	82	25	74
C-1210l-P-18	Frances Mutual Water Co., Well 2. SE. of Tustin; 2,485 feet SE. of Browning Ave., 1,925 feet SW. of State Highway 101, 70 feet S. of Well 12. Use: Not used since Well 12 (C-1210m-P-18) was drilled. Casing: 12 inches.	14598H	75	*100	(d)	Aug. 1918	---	---	41	275	24	46	2	53	17	65
C-1210m-P-18	Frances Mutual Water Co., Well 12. SE. of Tustin; 2,430 feet SE. of Browning Ave., 1,880 feet SW. of State Highway 101, 70 feet N. of Well 2. Use: Irrigation. Casing: 20 inches. Perforated 115-266.	14598I	75	*x1516	(d)	Nov. 1930	---	---	15	260	50	115	---	100	22	28
C-1210n-P-18	The Irvine Co., Plant 27, Well 687. SE. of Tustin; 2,150 feet SE. of Browning Ave., 1,650 feet NE. of A. T. & S. F. Ry. Use: Not used. Casing: 15 inches. Perforated 36-92; 130-1060.	14598J	70	*1084	(d) (b)	1923 2/18/29 3/25/29	---	---	---	268 349 317	76 100 106	700 200 316	---	---	---	---
C-1211c-P-18	The Irvine Co., Plant 41, Well 1183. N. of Irvine; 210 feet SW. of Trabuco Road, 0.47 mile NW. of Jeffrey Road. Use: Irrigation. Casing: 20 inches. Perforated 266-1570.	14600	157	*x1603	(d) (f)	1923 8/20/31	---	---	---	305 *202	266 256	700	---	50	---	---
C-1211e-P-18	The Irvine Co., Plant 21, Well 1004. NW. of Irvine; 0.57 mile SW. of State Highway, 30 feet NW. of Culver Road. Use: Well abandoned and plant removed. Casing: 24 inches. Perforated 150-1245.	14615B	82	*1290	(d)	1920	---	---	43	300	625	820	19	242	132	80
C-1211f-P-18	Frances Mutual Water Co., Well 9. N. of Irvine; 850 feet SE. of Culver Road, 70 feet NE. of Bryant Ave. Use: Irrigation. Casing: 20 inches. Perforated 235-1235. Analyses on 3/30/20 were from depths of 800, 1,000, 1,200, 1,300 and 1,350 feet, respectively.	14628	140	*x1397	(d) (d) (d) (d) (d) (d)	3/30/20 3/30/20 3/30/20 3/30/20 3/30/20 Nov. 1930	---	---	61	---	81 72 66 78 360 330	150 200 316 ---	0	41	27	152
C-1211i-P-18	Frances Mutual Water Co., Well 13. SE. of Tustin; 2,475 feet SE. of Myford Road, 600 feet NE. of State Highway 101. Use: Irrigation. Casing: 20 inches.	14618	110	*x1412	(d) (d)	July 1925 Nov. 1930	---	---	26	323 330	48 64	157 110	---	40 100	20 22	145 55
C-1211j-P-18	The Irvine Co., Plant 53, Well 1203. NW. of Irvine; 400 feet SE. of Culver Road, 100 feet NE. of Trabuco Road. Use: Irrigation. Casing: 20 inches. Perforated 285-1290.	14629	107	*1455	(d) (d) (d) (b)	Jan. 1919 1923 July 1926 Feb. 1927 2/18/29	---	---	52	372 390 348 360 437	54 135 280 360 156	142 100 565 210	0	54 50 134 84	30 97 33	130 250 212
C-1211k-P-18	The Irvine Co., Plant 80, Well 1245. SE. of Tustin; 60 feet SE. of Myford Road, 135 feet SW. of State Highway. Use: Irrigation. Casing: 20 inches. Perforated 807-1300.	14608	77	*x1553	(d)	5/20/30	---	---	17	305	60	172	---	124	25	40



TABLE 20. WELLS IN SANTA ANA-IRVINE AREA—Continued

Well number	Location and description.	Location number	Elevation of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Per cent sodium (Na + Na <sup>+</sup> )	Constituents (parts per million)						
									Bicarbonate radi- cide (HCO <sub>3</sub> )	Chloride radi- cide (Cl)	Sul- phate radi- cide (SO <sub>4</sub> )	Nitrate radi- cide (NO <sub>3</sub> )	Calcium (Ca)	Mag- nesium (Mg)	Sodium (Na)
C-121ln-P-18	Frances Mutual Water Co., Well 7. N. of Irvine; 2,000 feet NW. of Jeffrey Road. 50 feet SW. of Bryant Ave. Use: Abandoned and filled up.	14639B	192	(d)	Jan. 1919	—	—	68	336	54	134	0	40	14	<156
C-121lm-P-18	Frances Mutual Water Co., Well 6. N. of Irvine; 3,900 feet NW. of Jeffrey Road. 50 feet SW. of Bryant Ave. Use: Abandoned.	14639A	175	(d)	Nov. 1918	—	—	55	250	270	141	0	84	28	<182
C-121lp-P-18	W. L. West, E. T. McFadden and W. H. Walker. NW. of Irvine; 1,300 feet SE. of Culver Road, 660 feet SW. of State Highway 101. Use: Domestic. Casing: 12 1/2 inches. Gravel 35-37 1/2; 397-402.	14629B	107	(d)	Sept. 1929	—	—	50	332	232	140	—	100	30	<169
C-121li-P-18	Frances Mutual Water Co., Well 5. SE. of Tustin; 200 feet NW. of Culver Road. 50 feet NE. of Bryant Ave. Use: Abandoned. Casing: 12 1/2 inches.	14628A	130	(d) (d)	Aug. 1918 1924	—	—	63 56	305 326	51 43	124 138	1	40 41	14 27	<124 <120
C-121lr-P-18	The Irvine Co., Penman Well 1, Well 1271. SE. of Tustin; 3,300 feet NW. of Culver Road; 2,600 feet SW. of State Highway 101, 660 feet NW. and 40 feet NE. of S. corner of Lot 181. Use: Not Used. Casing: 7 3/8 inches. Perforated 172-220.	14608A	67	(d) (d)	6/27/32 7/6/32	—	—	78 78	537 500	415 500	1,080 1,222	—	105 128	60 54	<850 <875
C-1212a-P-19	The Irvine Co., Plant 67, Well 1227. SE. of Tustin; 0.48 mile NE. of Irvine Blvd., 150 feet SE. of Culver Road. Use: Irriga- tion. Casing: 15 inches. Perforated 245-233; 288-296; 326-334; 356-900.	14637A	188	(d)	Nov. 1928 Aug. 1929	—	—	63 62	366 342	60 68	140 156	—	40 40	22 25	<150 <155
C-1213b-P-19	The Irvine Co., Plant 65, Well 1225. NE. of Irvine; 0.48 mile NW. of Central Ave., 150 feet SW. of Irvine Blvd. Use: Irriga- tion. Casing: 12 inches. Perforated 258-270; 355-380; 450-500; 560-590; 660-707; 740-765.	14659B	266	(b) (e) (e) (e) (e) (e)	3/25/29 5/15/29 6/18/29 7/8/29 7/3/29 Aug. 1929	176 0 28 236 0 87 295 0 99	—	—	342 306 312 312 290 314	322 320 218 344 210 226	304 344 179 164 456 296	—	85 114 143 104	57 54 88 50	<199 <183 <268 <276
C-1213c-P-19	The Irvine Co., Plant 66, Well 1226. NE. of Irvine; 0.48 mile NE. of Irvine Blvd., 150 feet SE. of Jeffrey Road. Use: Irriga- tion. Casing: 12 inches. Perforated 258-270; 355-380; 450-500; 560-590; 660-707; 740-765.	14655	301	(d)	Aug. 1929	—	—	54	338	222	230	—	80	44	<206
C-1216b-P-19	The Irvine Co., Plant 37, Well 1170. N. of Irvine; 0.48 mile NW. of Central Ave., 50 feet NE. of Trabuco Road. Use: Irriga- tion. Casing: 20 inches. Gravel 253-257; 277-282; 1215-1230; 1345-1375.	13440	219	(d) (d) (e) (b) (f)	7/25/22 7/10/23 9/25/28 2/18/29 3/25/29 8/20/31	— — 178 0 3 — —	—	61 54 36 — — —	305 323 329 383 329 223	184 161 174 164 160 157	418 164 456 296 150 —	0 0 — — — —	110 83 254 — — —	30 23 ( ) — — —	<280 <165 <163 — — —
C-1216c-P-19	The Irvine Co., Plant 62, Well 1223. NE. of Irvine; 0.47 mile NW. of Central Ave., 200 feet SW. of Bryant Ave. Use: Irriga- tion. Casing: 20 inches. Perforated 310-850.	13450B	240	(d) (b) (b)	July 1928 2/18/29 3/25/29	—	—	39 — —	335 390 356	217 238 244	375 430 365	—	124 — —	70 — —	<175 — —
C-1216d-P-19	The Irvine Co., Plant 64, Well 1224. NE. of Irvine; 80 feet NW. of Central Ave., 0.48 mile NE. of Trabuco Road. Use: Irriga- tion. Casing: 12 inches. Perforated 365-400; 429-450; 475-540.	13450C	275	(d) (b)	Sept. 1928 3/25/29	—	—	50	314 329	167 160	405 308	—	122	37	<207
C-1217a-Q-19	Southern California Edison Co., Ltd. NE. of Irvine; 150 feet NE. of Trabuco Road, 0.45 mile SE. of Central Ave. Use: Domestic and plant. Casing: 6 inches. Perforated 378-388.	13451	278	(f)	8/20/31	—	—	—	*262	93	—	—	—	—	—
C-1217e-Q-20	The Irvine Co., Plant 58, Well 1186. E. of Irvine; in N. corner, Lot 300, Block 174, 2 1/2 miles NE. of State Highway 101, 1/2 mile NW. of SE. ranch line. Use: Irrigation. Casing: 9 5/8 inches. Perforated below 160 feet.	13503	505	(d) (d) (e) (d)	Dec. 1923 1/19/31 Aug. 1931 8/21/31	— — 90.5 —	— 0 18 —	28 62 45 —	292 323 311 335	59 71 57 61	90 185 133 160	— — Tr. —	65 54 68 80	23 18 22 25	<46 <156 <98 <100
C-1217f-P-19	The Irvine Co., Well 298. E. of Irvine; 4,000 feet NE. of Irvine Blvd., 1,100 feet SE. of Lambert Road, extended. Use: Irriga- tion. Casing: 15 inches. Perforated 60-220.	13480	440	(d) (d)	Feb. 1920 1/24/22	—	—	45 42	317 323	135 138	512 500	4 0	109 115	66 68	<207 <190
C-1217n-Q-19	The Irvine Co., Plant 55, Well 1210. NE. of Irvine; 0.47 mile SW. of Trabuco Road, 150 feet NW. of Lambert Road. Use: Irrigation. Casing: 12 inches. Gravel 295-298; 444-463.	13452B	276	(d) (d) (e) (b)	May 1927 Sept. 1927 9/25/28 2/18/29 3/25/29	— — 92 — —	— — 0 2 —	31 53 33 —	295 283 299 346 161	67 67 67 78 76	158 165 125 162 225	—	77 80 88 — —	40 32 ( ) — —	<75 <76 <115 — —
C-1217o-Q-19	The Irvine Co., Plant 56, Well 1211. S. of Irvine; 0.82 mile SW. of State Highway, 1,540 feet SE. of Laguna Ave. Use: Irriga- tion. Casing: 15 inches.	13452C	177	(d)	June 1927	—	—	36	292	65	240	—	90	35	<97



TABLE 20. WELLS IN SANTA ANA-IRVINE AREA. Continued

Well number	Location and description	Location number	Elevation of well ground in feet	Total depth of well in feet	Laboratory number	Date	Specific gravity (measured at 25°C)	Boron ppm	Per cent sodium (Na x 100) (Ca + Na)	Constituents (parts per million)					
										Barite (BaCO <sub>3</sub> )	Calcium (Ca)	Nitrate (NO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Magnesium (Mg)	Sodium (Na)
C-1217a-Q-19	The Irvine Co., Plant 57, Well 1214. E. of Irvine; 0.47 mile SW. of Trabuco Road, 0.53 mile SE. of Lambert Road. Use: Irrigation. Casing: 12 inches. Perforated 180-426.	13403	294	*3527	(d)	Oct. 1927				262	94	176	176	19	<109
					(d)	12/9/27				274	88	172	172	21	<95
					(d)	July 1928				42	63	166	166	21	<117
					(d)	9/25/28	97.2	0.2		257	78	154	154	25	<107
					(d)	3/25/29				302	86	166	166	25	<107
					(d)	Aug. 1932				335	61	169	169	32	<125
C-1217a-Q-19	The Irvine Co., Plant 61, Well 1222. E. of Irvine; 0.4 mile SE. of Central Ave., 0.12 mile SW. of Trabuco Road. Use: Irrigation. Casing: 12 inches. Perforated 240-605.	13451B	265	*4762	(d)	July 1928				262	92	252	252	32	<125
C-1217a-Q-19	The Irvine Co., Plant 60, Well 1221. SE. of Irvine; 0.22 mile SE. of Lambert Road extended, 100 feet SW. of A. T. & S. F. Ry. Use: Irrigation. Casing: 12 inches. Perforated 530-474.	13453	245	*4649	(d)	July 1928				262	170	224	224	25	<180
					(d)	3/25/29				268	162	170	170	25	<180
C-1218-R-20	Madure Ranch, El Toro; 1.809 feet NW. of Aliso Canyon Road, 1.200 feet SW. of A. T. & S. F. Ry. Use: Irrigation. Casing: 12 inches.	13507	400	469	(d)	5, 8, 22 Mar. 1925				143	355	519	519	25	<450
					(d)	Mar. 1925				130	355	504	504	25	<339
C-1218a-R-20	W. A. Cornelius, El Toro; 2,000 feet SW. of A. T. & S. F. Ry., 500 feet SE. of Aliso Canyon Road. Use: Irrigation.	13507A	398		(d)	1922				200	30	75	75		
C-1218b-R-20	R. H. Prothero, El Toro; 3,900 feet SE. of Aliso Canyon Road, 2,200 feet SW. of A. T. & S. F. Ry. Use: Not used. Casing: Dug well with concrete pit.	13515	350	42	(d)	5/8/22				332	145	553	553	25	<230
C-1218c-R-20	R. H. Prothero, S. of El Toro; 4,100 feet SE. of Aliso Canyon Road, 2,500 feet SW. of A. T. & S. F. Ry., 350 feet S. of C-1218b-R-20. Use: Irrigation. Casing: 12 inches. Gravel 36-52. Shale 601-1000.	13518A		*1,000	(d)	Sept. 1930				265	238	400	400	24	<310
C-1218d-R-20	G. H. Scott, El Toro; 5,800 feet SE. of Aliso Canyon Road, 1,000 feet W. of A. T. & S. F. Ry. Use: Irrigation. Casing: 12 inches.	13518B		110	(d)	Dec. 1929				317	177	493	493	35	<205
C-1219-Q-20	The Whiting Co., Well 1. NE. of El Toro; 0.75 mile NE. along Aliso Canyon Road from Trabuco Road, thence 0.15 mile along road running N. and NE. through Whiting Tracts Nos. 910 and 950, 10 feet E. of road, in Block 15, Tract 910. Use: Irrigation.	13535			(t)	1929				202	48	92	92	23	<31
C-1219a-Q-20	The Whiting Co., Well 2. NE. of El Toro; 0.75 mile NE. along Aliso Canyon Road from Trabuco Road, thence 0.16 mile along road running N. and NE. through Whiting Tracts Nos. 910 and 950, 10 feet E. of road, in Block 15, Tract 910. Use: Irrigation.	13535A			(t)	1929				194	60	170	170	32	<50
C-1219b-Q-20	The Whiting Co., Well A. NE. of El Toro; 0.75 mile NE. along Aliso Canyon Road from Trabuco Road, thence 0.80 mile along road running N. and NE. through Whiting Tracts Nos. 910 and 950, 200 feet E. in Block 10, Tract 950. Use: Irrigation.	13534			(t)	1929				226	120	1,032	1,032	49	<332
C-1219c-Q-20	The Whiting Co., Well B. NE. of El Toro; 0.75 mile NE. along Aliso Canyon Road from Trabuco Road, thence 1.22 mile along road running N. and NE. through Whiting Tracts Nos. 910 and 950, 200 feet E. in Block 6, Tract 950. Use: Irrigation.	13534A			(t)	1929				170	78	292	292	33	<55
C-1219d-Q-20	M. J. Osterman, N. of El Toro, 2,300 feet N. and 690 feet E. of SW. corner, Sec. 12, T. 6 S., R. 8 W., S. B. & M. Use: Domestic. Casing: 4 x 4 inches.	13523		35	(d)	1922				305	54	52	52	27	<50
					(d)	3/18/25				97	923	670	670	27	<50
C-1219e-Q-20	Prospect Ranch, Jerome-Browning Well. NE. of El Toro; 2,900 feet E. and 2,400 feet S. of NW. corner, Sec. 12, T. 6 S., R. 8 W., S. B. & M. Use: Irrigation. Casing: 15 inches. Perforated 125-504.	13533		*804	(d)	Sept. 1929				244	64	100	100	15	<50
C-1220a-Q-19	The Irvine Co., Plant 68, Well 1230. S. of Irvine; 0.48 mile SE. of Laguna Ave., 100 feet SW. of Valencia Ave., extended. Use: Irrigation. Casing: 12 inches. Perforated 210-220; 274-46.	13443A	203	*894	(d)	Aug. 1929				223	154	196	196	26	<132
C-1220b-Q-19	The Irvine Co., Well 1146. S. of Irvine; 75 feet SE. of State Highway 101, 60 feet NW. of Laguna Blvd. Use: Not used. Casing: 15 inches.	13443B	205	*535	(d)	1922				260	117	178	178	32	<100
C-1220c-Q-19	The Irvine Co., Plant 59, Well 1217. SE. of Irvine; 1.03 miles SE. of Laguna Ave., 100 feet SW. of Valencia Ave., 400 feet SW. of State Highway. Use: Irrigation. Casing: 12 inches. Perforated 200-420.	13454C	220	*915	(d)	1/3/28				244	174	295	295	20	<200
					(d)	July 1928				244	168	280	280	26	<184
					(b)	2/18/26				246	170	238	238		
					(b)	3/25/29				246	172	236	236		



TABLE 20. WELLS IN SANTA ANA-IRVINE AREA. Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>-3</sup> at 25°C)	Boron ppm	Per cent sodium (Na x 100 Ca + Mg)	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-1220-Q-19	The Irvine Co., Plant 47, Well 1103. Irvine; 0.25 mile SE. of Central Ave., 100 feet NE. of Valencia Ave. Use: Irrigation.	13433B	187	x	(d)	3/18/25	---	---	52	244	156	188	---	80	24	<150
					(e)	5/20/25	---	---	48	380	188	203	---	100	30	<160
					(f)	9/25/28	122	0.2	54	344	163	173	---	113	( )	<151
					(b)	2/18/29	---	---	---	281	150	172	---	---	---	---
					(c)	3/25/29	---	---	---	256	140	148	---	---	---	---
C-1222b-Q-18	The Irvine Co., Well 1114. W. of Irvine; 0.51 mile SE. of Jeffrey Road, 510 feet SW. of Valencia Ave. Use: Abandoned. Casing: 12 inches. Perforated 418-454.	13422B	188	*x506	(f)	4/14/31	---	---	---	*301	35	---	---	---	---	---
					(f)	6/22/31	---	---	---	*258	180	---	---	---	---	---
					(f)	6/25/31	---	---	---	*265	179	---	---	---	---	---
					(f)	7/29/31	---	---	---	*199	146	---	---	---	---	---
					(f)	8/20/31	---	---	---	*255	159	---	---	---	---	---
C-1222c-P-18	Robert Jeffrey. SE. of Tustin; 3,900 feet SE. of Culver Road, 2,600 feet NE. of A.T. & S.F. Ry., near center of NE. line of Lot 185. Use: Irrigation. Casing: 15 inches. Perforated 300-909.	13420	136	*969	(f)	4/1/31	---	---	---	*330	175	---	---	---	---	---
					(f)	6/22/31	---	---	---	*226	125	---	---	---	---	---
					(f)	6/25/31	---	---	---	*279	125	---	---	---	---	---
					(f)	7/29/31	---	---	---	*141	155	---	---	---	---	---
					(f)	8/20/31	---	---	---	*224	122	---	---	---	---	---
C-1222d-P-18	Wm. Jeffrey. NW. of Irvine; 50 feet NW. of Jeffrey Road, 50 feet SW. of State Highway 134. Use: Irrigation. Casing: 13 1/2 inches. Perforated 30-1240.	13431	156	*1,240	(f)	4/14/31	---	---	---	*207	143	---	---	---	---	---
					(f)	8/20/31	---	---	---	*229	145	---	---	---	---	---
C-1222e-Q-18	The Irvine Co., Plant 39, Well 1179. W. of Irvine; 2,550 feet NW. of Jeffrey Road, 75 feet SW. of Valencia Ave. Use: Irrigation. Casing: 20 inches. Gravel-packed well.	13411	101	*x1,586	(d)	10/22	---	---	48	273	124	150	0	79	21	<129
					(e)	9/25/28	113	0.1	32	262	110	216	---	160	( )	<90
					(b)	2/18/29	---	---	---	397	146	192	---	---	---	---
					(c)	3/25/29	---	---	---	266	116	144	---	---	---	---
C-1222j-Q-18	The Irvine Co., Plant 35, Well 1161. W. of Irvine; 2,000 feet SE. of Jeffrey Road, 150 feet NE. of Valencia Road. Use: Irrigation. Casing: 20 inches. Perforated 268-1568.	13422C	142	*x1,503	(d)	10/21	---	---	44	250	112	127	0	67	26	<101
					(e)	9/25/28	104	0.20	39	256	121	125	---	116	( )	<101
					(f)	3/18/29	---	---	---	283	148	168	---	---	---	---
					(b)	2/25/29	---	---	---	269	116	146	---	---	---	---
					(f)	4/14/31	---	---	---	*279	39	---	---	---	---	---
					(f)	6/22/31	---	---	---	*242	121	---	---	---	---	---
					(f)	6/25/31	---	---	---	*246	121	---	---	---	---	---
					(f)	7/29/31	---	---	---	*258	128	---	---	---	---	---
					(f)	8/20/31	---	---	---	*265	89	---	---	---	---	---
C-1222k-P-18	The Irvine Co., Plant 48, Well 1177. NW. of Irvine; 3,900 feet SE. of Culver Road, 140 feet SW. of A.T. & S.F. Ry. Use: Irrigation. Casing: 16 inches. Perforated 160-520.	13421A	99	*540	(d)	Sept. 1925	---	---	43	336	250	722	---	158	94	<275
					(b)	2/18/29	---	---	---	344	406	408	---	---	---	---
					(c)	3/25/29	---	---	---	295	517	268	---	---	---	---
C-1222n-P-18	The Irvine Co., Plant 70, Well 1244. NW. of Irvine; 0.73 mile SE. of Culver Road, 0.48 mile NE. of Valencia Blvd. Use: Irrigation.	13401B	99	x	(d)	4/18/30	---	---	68	244	125	350	---	70	23	<260
C-1222o-Q-18	A. J. McEdden. W. of Irvine; 75 feet NW. of Jeffrey Road, 70 feet NE. of Valencia Ave. Use: Not used, capped below around. New well 500 feet deep, 12 feet SE. and 30 feet SW. of this well.	13421B	125	600	(d)	Dec. 1918	---	---	39	235	128	161	0	93	26	<98
C-1222p-Q-18	C. B. Cubbins. NW. of Irvine; 0.51 mile NW. of Jeffrey Road, 1,000 feet NW. of Valencia Ave. Use: Irrigation.	13411A	104	78	(d)	Dec. 1918	---	---	31	280	87	198	0	106	33	<53
C-1222q-Q-18	C. B. Cubbins. NW. of Irvine; 0.51 mile NE. of Jeffrey Road, 900 feet NE. of Valencia Ave. Use: Irrigation.	13411B	102	114	(d)	Dec. 1918	---	---	35	293	183	345	28	138	55	<142
C-1222r-Q-19	The Irvine Co., Plant 17, Well 1113. Irvine; 180 feet SW. of State Highway 101, 320 feet SE. of Central Ave. Use: Irrigation. Casing: 15 inches. Perforated 235-690.	1342A	200	*720	(b)	2/18/29	---	---	---	310	106	180	---	---	---	---
					(b)	3/25/29	---	---	---	302	116	94	---	---	---	---
					(d)	10/20/31	---	---	51	292	128	320	---	88	32	<173
C-1223-Q-18	The Irvine Co., Plant 9, Well 707. W. of Irvine; 1,200 feet NE. of Harkle Road, 85 feet SE. of Jeffrey Road. Use: Not used. Casing: 15 inches. Perforated 250-299.	13412	116	*x301	(d)	Jan. 1919	---	---	64	223	150	66	0	49	12	<142
					(d)	1921	---	---	55	214	152	66	0	56	17	<136
C-1224-Q-18	The Irvine Co., Plant 13. W. of Irvine; 0.65 mile SE. of Culver Road, 150 feet SW. of Harkle Road. Use: Domestic. Casing: 15 inches.	13402	96	x310	(d)	1920	---	---	70	235	214	42	2	44	12	<173
					(e)	8/21/28	160	0.1	45	244	257	172	---	163	( )	<153
					(f)	8/20/31	---	---	---	*265	231	---	---	---	---	---
C-1224b-Q-18	The Irvine Co., Well 1238. W. of Irvine; 2,700 feet NW. of Jeffrey Road, 2,730 feet NE. of Harkle Road. In S. corner of Lot 193. Use: Not used. Casing: 8 inches. Perforated 200-318.	13402A	100	*951	(d)	10/2/29	---	---	26	244	62	123	---	64	35	<50
C-1224c-P-18	The Irvine Co., Plant 82, Well 1246. SE. of Tustin; 90 feet NW. of Culver Road, 90 feet NE. of Valencia Ave. Use: Irrigation. Casing: 24 inches. Perforated 110 Road.	13400	67	*1,145	(d)	7/3/30	---	---	20	225	105	82	---	70	30	<35



TABLE 20. WELLS IN SANTA ANA IRVINE AREA (Continued)

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>-3</sup> at 25°C)	Boron ppm	Per cent sodium, Na x 100, Ca + Mg (HCO <sub>3</sub> )	Bicarbonate radicle (HCO <sub>3</sub> )	Calcium radicle (Ca)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium in mg/l	Magnesium in mg/l	Sodium in mg/l	Conductance (parts per million)
C 1224c Q 1s	The Irvine Co., Plant 76, Well 1239. W. of Irvine; 0.40 mile SE. of Culver Road, 0.25 mile SW. of Valencia Blvd. Use: Irrigation. Casing: 20 inches. Perforated 395-795.	13401A	83	*1,120	(d)	Oct. 1929	-----	-----	49	200	146	50	-----	50	22	-----	55
C 1224f Q 1s	The Irvine Co., Plant 11, Well 939. W. of Irvine; 2.665 feet SE. of Culver Road, 1.370 feet N.E. of Harkle Road, at center of NW. line of Lot 200. Use: Irrigation. Casing: 15 inches. Perforated 300-385.	13402B	87	*388	(d)	1020	97.2	0.50	57	238	198	120	0	72	10	156	-----
C 1225e Q 1f	The Irvine Co., Plant 10, Well 471. SE. of Santa Ana; 1,200 feet SE. of intersection of Lane Road and Culver Road, 1,200 feet SE. and 400 feet SW. of N. corner of Lot 210. Use: Domestic, only, formerly irrigation. Casing: 12 inches. Perforated 306-322; 394-402.	13383A	71	*408	(d)	7/23/29	141	0.66	45	222	316	22	-----	4	6	283	-----
C 1225f Q 1s	The Irvine Co., Plant 78, Well 1243. S. of Tustin; 100 feet NE. of Delhi Road, 250 feet NW. of Culver Road. Use: Irrigation. Casing: 20 inches. Perforated 410-690.	13391A	69	*1,103	(d)	3/11/30	137	0.50	66	238	243	67	-----	57	15	156	-----
C 1225g P 1s	The Irvine Co., Plant 12, W. of Irvine; 3,300 feet SW. of Harkle Road, 3,200 feet SE. of Culver Road. Use: Not used. Casing: 12 inches.	13393	90	-----	(d)	1920	102	1.00	90	247	191	5	0	9	6	290	-----
C 1227b Q 1s	The Irvine Co., Plant 75, Well 1241. S. of Tustin; 0.25 mile SW. of Delhi Road, 300 feet NW. of Culver Road. Use: Irrigation. Casing: 20 inches. Perforated 400-426; 500-520.	13391	73	*868	(d)	3/11/30	98.9	1.02	95	300	176	58	-----	9	-----	133	-----
C 1227 P 1s	The Irvine Co., Plant 78, Well 1243. S. of Tustin; 100 feet NE. of Delhi Road, 250 feet NW. of Culver Road. Use: Irrigation. Casing: 20 inches. Perforated 410-690.	13391A	69	*1,103	(d)	3/11/30	96.5	0.96	96	222	180	13	-----	8	0	261	-----
C 1227d P 1s	The Irvine Co., Well 1247. S. of Tustin; 3,700 feet NW. of Culver Road, 60 feet NE. of Delhi Road. Use: Not used. Casing: 20 inches. Perforated 407-1012 or finally, then re-perforated 410-485; 525-545; 620-640; 705-830; 970-990.	13380	52	*1,166	(d)	8/15/30	88.6	0.80	94	232	190	11	-----	8	2	293	-----
C 1227f Q 1f	The Irvine Co., Plant 25, Well 1042. S. of Santa Ana; 0.51 mile NW. of Culver Road, 1.27 miles SW. of Delhi Road. Use: Irrigation. Casing: 12 inches. Gravel-sand 240-260; 588-595; 598-740.	13372	48	*808	(d)	1020	89.1	0.82	96	234	176	0	0	1	21	162	-----
C 1227m P 1s	The Irvine Co., Plant 22, Well 1057. S. of Tustin; 1,320 feet SW. of Valencia Ave., 60 feet NW. of Culver Road. Use: Domestic and stock. Casing: 15 inches. Perforated 30-900; 990-1010.	13390	68	*1,026	(d)	1020	-----	-----	70	220	159	54	0	3	10	147	-----
C 1228 P 17	W. Pollard, Well 12. S. of Tustin; 2,200 feet SE. of Newport Blvd., 0.53 mile N.E. of Lane Road. Use: Irrigation.	13340A	40	*592	(d)	4/26/32	-----	-----	64	366	460	715	-----	140	65	700	-----
C-1228g-P-17	The Irvine Co., Well 1253. S. of Santa Ana; 1,320 feet SE. of Newport Blvd., 95 feet NE. of Lane Road. Use: Not used. Casing: 20 inches. Analysis on 5/25/31 from bottom stratum. June 27, 1931, 12-inch casing collapsed at 550 feet (20-inch casing from 0 to 408.5 feet), leaving 750 feet of 4-inch, cleaning line and 2 joints of 2-inch air line in well.	13330C	34	*1,430	(d)	5/28/31	-----	-----	40	153	53	106	-----	18	22	75	-----
C-1230b-P-17	Holly Sugar Co., Well 1. S. of Santa Ana; 900 feet N. of Dyer Road, 545 feet W. of S. P. R. in NW. corner of Holly Sugar Co.'s Dyer St. plant. Use: Industrial. Casing: 12 inches. Open bottom and not perforated.	14546E	55	*1,010	262	8/27/31	34.6	-----	83	431	13	42	0	3	6	75	-----
C 1231e P 17	The Irvine Co., Plant 44, Well 935. S. of Tustin; 1,270 feet NE. of Delhi Road, 45 feet SE. of Browning Ave., in N. corner of Lot 92. Use: Irrigation. Casing: 15 inches. Perforated 390-410; 494-504; 504-565; 720-740; 750-792; 800-810; 825-835; 850-870; 950-1026. Analysis in May, 1932, having per cent Sodium of 39, was taken after some of lower strata was shot off.	14579A	57	*1,346	(d)	1023	65.5	0.38	93	256	1,085	152	-----	41	7	890	-----



TABLE 20. WELLS IN SANTA ANA-IRVINE AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> ) at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						Magnesium (Mg)	Sodium (Na)
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)			
C-1232a-P-17	The Irvine Co., Plant 4, Well 190. S. of Tustin; 1,270 feet NE. of Delhi Road, 50 feet SE. of Red Hill Ave. In N. corner of Lot 94. Use: Not used. Casing: 13 inches. Perforated 30-32, 136-180.	14568C	67	*199	(4)	7/23/20	-----	-----	40	206	34	136	5	39	40		680
C-1233-P-17	The Irvine Co., Plant 5, Well 1251. S. of Tustin; 30 feet SW. of Delhi Road, 50 feet SE. of Newport Blvd. Use: Not used.	14558	66	x-----	(4)	7/23/20 2/9/31	-----	-----	18	232 *222	35 35	150 60	8	62 62	28 22		63 64
C-1233a-P-17	The Irvine Co., Plant 81, Well 1251. S. of Tustin; 200 feet SW. of Delhi Road, 0.24 mile NW. of Red Hill Ave. Use: Irrigation. Casing: 20 inches. Gravel-packed well.	14558A	63	*1186	(4)	Feb. 1931	-----	-----	18	*222	35	60	-----	62	22		64
C-1234a-P-17	Fitzpatrick Bros. and E. Cubbons. S. of Santa Ana; 1,354 feet N. of Delhi Road, 154 feet W. of McClay St. Use: Irrigation. Casing: 15½ inches. Water from stratum at 400 feet; steel beds below 515 feet.	14545C	70	715	(4) 307 927	June 1925 9/17/31 5/4/32	----- 76.1 75.9	0.08 0.12	27 26 25	252 232 229	36 34 39	122 156 143	----- 6 4	74 83 85	23 23 25		48 48 48
C-1236b-P-17	Holly Sugar Co., Well 4. S. of Santa Ana; 75 feet S. of Dyer Road, 150 feet W. of Dyer Road intersection with Newport Blvd.; 50 feet E. of Well 3. Use: Industrial. Perforated 50-842.	14540B	50	*845	201	8/27/31	40.6	-----	40	198	16	58	0	41	12		47
C-1236c-P-17	The Irvine Co., Plant 51, Well 1185. S. of Santa Ana; 3,900 feet NE. of Lane Road, 60 feet SE. of Newport Ave. Use: Irrigation. Casing: 18 inches. Perforated 220-320; 380-740.	14540C	42	*775	(4) (4)	1923 July 1926	-----	-----	42 47	160 203	21 17	42 50	0	30 25	11 15		60 60
C-1243a-Q-16	The Irvine Co., Plant 16, Well 1038. S. of Santa Ana; 1,350 feet SE. of Newport Blvd., 0.08 mile NE. of Palisades Road. Use: Irrigation. Casing: 12 inches. Perforated 420-570.	13322A	45	*952	(4)	1920	-----	-----	92	*405	23	22	0	5	5		655
C-1243c-Q-16	Santa Ana Heights Water Co. S. of Santa Ana; 550 feet SE. of Newport Blvd., 120 feet SW. of Palisades Road. N. of Santa Ana Country Club. Use: Municipal. Casing: 10 inches.	13312B	33	x720	60 (4)	6/16/31 4/12/32	101.3	-----	94	*256	195 178	1	0	4	5		218
C-1244a-Q-16	Newport Heights Irrigation District. S. of Santa Ana; 100 feet NE. of Palisades Road, 550 feet NW. of Santa Ana Ave., extended. W. of reservoir. Use: Irrigation.	13313	45	x609	61	6/16/31	64.8	-----	90	*226	92	3	0	6	5		146
C-1244d-Q-16	The Irvine Co., Plant 15, Well 715. S. of Santa Ana; 150 feet S. of Palisades Road, 135 feet W. of Santa Ana Ave. Near Well 283. Use: Domestic irrigation.	13313C	45	-----	(4) (4)	1920 July 1932	-----	-----	92 84	*358 *268	143 110	14 41	0	7 Tr.	6 17		621 6162
C-1244f-Q-16	The Irvine Co., Plant 7. S. of Santa Ana; 375 feet NE. of Palisades Road, 1,650 feet SE. of Santa Ana Ave. Use: Abandoned and filled in 1932.	13323	25	-----	(4) (4)	1920 4/27/22	-----	-----	77 43	232 256	50 138	25 165	0 3	17 80	6 25		6102 6104
C-1245b-Q-16	Whittier Ranch. SW. of Santa Ana; 200 feet N. of N. line of Banning Tract, 200 feet E. of Old Santa Ana Road, 1,500 feet S. of Adams Ave. Use: Domestic and irrigation.	13293	63	-----	654	1/26/32	37.3	0.18	72	192	14	20	0	17	5		73
C-1254-P-15	Owner unknown. SW. of Santa Ana; 300 feet E. of levee of Santa Ana River, 50 feet S. of Talbert Road. In old pump house. Use: Irrigation.	14479	35	x-----	(4)	11/17/31	-----	-----	-----	*114	20	-----	-----	-----	-----		-----

\* Loc in files of Division of Water Resources.

x Water levels in files of Division of Water Resources.

b Includes small equivalent quantity of Carbonate (CO<sub>3</sub>).c Sulfate (SO<sub>4</sub>) determined by turbidity method.

d Alkaline bases estimated by difference between sum of acid radicals and sum of Chloride and Magnesium in milligram equivalents on 100-gram equivalent quantity of Sodium.

e Analysis by University of California, Graduate School of Tropical Agriculture and Citrus Experiment Station, Riverside, California.

f Analysis by University of California, Department of Public Health, Bureau of Sanitary Engineering.

g Analysis by Orange County Flood Control District, Santa Ana, California.

h Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.

i Analysis by Charles Dickens, Oakland, California.

j Calcium and Magnesium determined together and calculated to equivalent quantity of Calcium.

k Value obtained from The Water Co., Los Angeles, California and Magnesium determined together and calculated to equivalent quantity of Calcium by Division of Water Resources.



TABLE 21. SURFACE AND SUBSOIL WATERS IN SANTA ANA-IRVINE AREA

Number	Location and description	Location number	Elevation of ground	Discharge in second-foot	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)							
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	
SURFACE WATERS																	
S15718-M-18	Santiago Creek, NE of Villa Park. Sampled from Serrano Water Co. and John T. Carpenter Water Co. division box, 0.5 mile above mouth of canyon, in SW 1/4 of Sec. 13, T. 4 S., R. 9 W. Canal diverts from creek 0.12 mile upstream. Discharge given is combined discharge of Santiago Creek and Serrano and Carpenter Canal from U. S. G. S. unpublished records. Use: Irrigation.	S15718	425	-----	(e) (e) 758 820 922 997 1059	Oct. 1918 June 1927 2/22/32 3/17/32 4/20/32 5/21/32 6/18/32	----- ----- 93.4 91.5 61.1 73.3 64.7	----- ----- 0.26 0.16 0.12 0.15 0.10 0.05	26 26 17 ----- 17 16 -----	*292 295 314 296 *220 *256 *241	28 32 30 34 14 20 0	213 203 229 ----- 129 163 -----	1 ----- 2 ----- 1 Tr.	86 106 107 ----- 76 91 -----	38 26 44 ----- 24 30 -----	161 60 43 ----- 27 30 -----	
SUBSOIL WATERS																	
S13260a-P-15	Newport Drainage District, tile drain outlet, SW, of Santa Ana; 1 mile W. of Fairview Ave., 0.35 mile N. of Gisler St. at NW corner of Pomeroey Ranch.	S13260a	60	-----	632 693	1/19/32 2/3/32	347 259	0.46 0.33	57 54	327 284	250 167	1,323 957	18 10	181 154	105 82	542 385	
S13262-Q-15	Newport Drainage District, open drainage ditch, SW, of Santa Ana. Sampled at O. C. F. C. D. drainage gaging station 10,500 feet N. of Adams Ave., 5,600 feet W. of Fairview Ave. Tile drainage comes in about 1.25 miles up drain.	S13262	60	-----	(d)	6/1/32	-----	-----	-----	-----	264	-----	-----	-----	-----	-----	
S13281-P-15	Newport Drainage District, tile drain manhole, SW, of Santa Ana; 25 feet W. of Fairview Ave., 1,000 feet N. of Gisler St.	S13281	29	-----	692	2/3/32	259	0.41	-----	290	170	-----	-----	-----	-----	-----	
S13291-P-16	Newport Drainage District, tile drain manhole, SW, of Santa Ana; 0.5 mile S. of Huntzinger Road, 15 feet E. of Old Santa Ana Road.	S13291	30	-----	691	2/3/32	232	0.43	-----	305	110	-----	-----	-----	-----	-----	
S13300-P-16	Newport Drainage District, tile drain, S, of Santa Ana; 1,000 feet E. of Greenville Road, 15 feet N. of Wakeham Ave.	S13300	33	-----	688	2/3/32	248	0.46	-----	296	98	-----	-----	-----	-----	-----	
S13301-Q-16	Newport Drainage District, tile drain manhole, S, of Santa Ana; 25 feet E. of Bear Road, 0.25 mile N. of Paulerino Ave.	S13301	30	-----	682	2/3/32	61.3	0.20	-----	207	52	-----	-----	-----	-----	-----	
S13313-Q-16	Delhi Drainage District, open drainage ditch, S, of Santa Ana. Sampled at O. C. F. C. D. drainage gaging station 8,300 feet SW, of Palisades Road, 1,400 feet SE, of Newport Ave.	S13313	20	-----	(d) (d)	4/1/31 6/1/32	-----	-----	-----	*347 1,392	306 1,392	-----	-----	-----	-----	-----	
S13314-Q-16	Delhi Drainage District, open drainage ditch, N, of Newport. Sampled at outfall 2,800 feet SE, of Santa Ana Ave., 3,800 feet SW, of Palisades Road at The Irvine Co. weir.	S13314	5	-----	(c)	June 1930	-----	-----	73	427	425	1,976	-----	193	75	1,000	
S13352-Q-17	The Irvine Co., open drainage ditch, SE, of Santa Ana. Sampled on N. line of Lane Road, 6,300 feet NW, of Culver Road.	S13352	36	-----	(d)	4/1/31	-----	-----	-----	*343	1,006	-----	-----	-----	-----	-----	
S13362-Q-17	The Irvine Co., open drainage ditch, SE, of Santa Ana. Sampled at O. C. F. C. D. drainage gaging station 6 on N. line of Lane Road, 1.65 miles NW, of Culver Road.	S13362	35	-----	(d) (d)	4/1/31 6/1/32	-----	-----	-----	*324	642 451	-----	-----	-----	-----	-----	
S1440s-P-16	Newport Drainage District, tile drain manhole, SW, of Santa Ana; 900 feet W. of Greenville Road, 0.6 mile N. of Talbert Road.	S1440s	42	-----	690	2/3/32	199	0.32	-----	332	130	-----	-----	-----	-----	-----	
S14508-P-16	Newport Drainage District, tile drain manhole, SW, of Santa Ana; 15 feet N. of Delhi Road, 1,200 feet E. of Greenville Road.	S14508	44	-----	684	2/3/32	148	0.45	-----	253	41	-----	-----	-----	-----	-----	
S14509-P-16	Newport Drainage District, tile drain manhole, SW, of Santa Ana; 1,200 feet E. of Greenville Road, 2,000 feet S. of Delhi Road.	S14509	40	-----	687	2/3/32	248	0.48	-----	293	98	-----	-----	-----	-----	-----	

<sup>a</sup> Includes small equivalent quantity of Carbonate (CO<sub>3</sub>).<sup>b</sup> Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.<sup>c</sup> Analysis by University of California, Graduate School of Tropical Agriculture and Citrus Experiment Station, Riverside, California.<sup>d</sup> Analysis by Orange County Flood Control District, Santa Ana, California.



TABLE 22. SURFACE WATERS ABOVE LOWER CANYON OF SANTA ANA RIVER

Number	Location and description	Location number	Elevation of ground in feet	Discharge in second-foot	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>-3</sup> at 25 C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate (HCO <sub>3</sub> )	Chloride (Cl)	Sulfate (SO <sub>4</sub> )	Nitrate (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
S8628 D-20	San Antonio Creek, NW, of Upland. Sampled from tailrace of Southern California Edison Co., Ltd., power house, 4 miles above mouth of canyon. Discharge given is combined discharge of San Antonio Creek and Southern California Edison Co.'s canal, from W. S. P. No. 721 and U. S. G. S. unpublished records.	S8628	3,250	11.9	104	7/ 3/31	28.4		13	150	0	14	1	45	9	10
					216	8/12/31	28.5		9	168	0	14	1	46	12	7
					282	9/10/31	31.6	Tr.	4	165	0	14	Tr.	45	10	3
					446	10/16/31	28.6			168	2					
					494	11/ 9/31	28.8	0.04		168	0					
					589	12/14/31	29.3	0.04	8	168	0	8	1	44	10	7
					622	1/14/32	28.5			168	2					
					753	2/16/32	27.9	Tr.		168	0					
					835	3/17/32	27.7	0.05		168	2					
					905	4/15/32	26.3	0.08	7	156	0	10	1	43	7	5
S4562 E-21	Cucamonga Creek, 6 miles N. of Upland. Sampled at U. S. G. S. gaging station in NE ¼ Sec. 17, T. 1 N., R. 7 W., S. B. B. & M. Discharge is from U. S. G. S. unpublished records.	S4562	2,550	17	837	3/17/32	26.6	0.06	12	156	2	14	0	39	10	9
S18561 E-23	Day Creek, 6 miles N. of Etiwanda. Sampled at U. S. G. S. gaging station in SW ¼ Sec. 8, T. 1 N., R. 6 W., S. B. B. & M., 0.25 mile below junction of two main forks. Discharge is from U. S. G. S. unpublished records.	S18561	2,900	4.6	836	3/17/32	25.0	0.02	12	140	2	7	0	41	8	8
S19363 C-23	Lytle Creek, N. fork, NW, of San Bernardino. Sampled one mile above Glenn Ranch. Discharge estimated when sampled.	S19363	3,500	6	( <sup>d</sup> )	3/12/30	38.0	Tr.		189	Tr.	27		57	11	
S19459 E-25	Lytle Creek, NW, of San Bernardino. Sampled from creek at intake of Fontana power house canal, 1.35 miles NW, from Cañon Creek Road on E. side of Lytle Creek Canyon Road. During spring of 1932 70 lbs. of CuSO <sub>4</sub> per 24 hours was added to flow in power canal 500 feet below this station. Lab. No. 1307 was sampled at S18704-P-26, as a comparison to Lab. No. 1306 at this station.	S19459	2,220		1306	9/ 2/32	32.7	0.02	8	180	0	24	1	51	12	7
S18704-P-26	Lytle Creek water, NW, of San Bernardino. Sampled from tailrace at Fontana power house, 150 feet NE, of Riverside Ave., 2 1/2 miles NW, of Highland Ave. Discharge given is combined discharge of Lytle Creek and Fontana pipe line from W. S. P. No. 721 and U. S. G. S. unpublished records.	S18704	1,580	27	( <sup>e</sup> )	6/ 7/30		Tr.		173	3	24	1	50		
					103	7/ 3/31	31.5		15	177	0	21	Tr.	48	8	12
					217	8/12/31	31.0		11	180	2	21	Tr.	49	13	9
					289	9/10/31	35.0	0.12	8	183	0	21	Tr.	49	12	6
					432	10/13/31	32.0	0.01		180	0					
					493	11/ 9/31	32.1	0.02		180	0					
					588	12/14/31	36.1	0.01	10	204	2	25	1	56	10	9
					625	1/14/32	31.8	0.02		180	2					
					752	2/16/32	25.6	0.01		137	0					
					827	3/15/32	26.6	0.01	143	4	4					
					904	4/15/32	26.7	0.02	11	152	2	11	1	40	8	8
					991	5/20/32	26.7	0.08		149	0					
					1054	6/17/32	27.8	0.02		152	0					
					1171	7/15/32	28.8	0.02		150	0					
					1281	8/15/32	33.8	0.03		192	0					
					S19433 C-24	Lone Pine Creek near Kernbrook. Sampled 550 feet above U. S. G. S. gaging station and 200 feet below Lone Pine Road crossing, or 550 feet N. and 800 feet W. of the S. ¼ corner, Sec. 12, T. 2 N., R. 6 W., S. B. B. & M. Residue water below San Andrea fault. Discharge from W. P. Rowe.	S19433	2,642	0.02	1307	9/ 2/32	35.4	0.03	8	186	0
1394	9/19/32	35.2	0.08	198						0						
1478	10/15/32	35.6	0.08	195						0						
1538	11/14/32	34.1	0.04	12						192	2	22	Tr.	53	11	11
1690	1/16/33	34.7	0.04							189	0					
1755	2/16/33	32.5	0.04							183	0					
( <sup>d</sup> )	10/19/32	78.8	0.11	9						354	14	14	2	110	36	18
S19433 C-24	Lone Pine Creek, N. of Kernbrook. Sampled at U. S. G. S. gaging station 560 feet W. and 100 feet N. of S. ¼ corner, Sec. 12, T. 2 N., R. 6 W., S. B. B. & M., 50 feet above A. T. & S. F. B. bridge. Discharge from U. S. G. S. unpublished records.	S19433	2,600	0.9	829	3/17/32	74.4	0.02	12	326	7	145	4	100	36	24
					900	4/15/32	76.9	0.02	12	333	11	153	2	100	38	25
					995	5/14/32	80.1	0.16		332	0					
					1057	6/17/32	81.1	0.06		336	12					
					1175	7/12/32	84.4	0.07		338	12					
					1284	8/15/32	84.3	0.05		333	11					
					1401	9/17/32	84.1	0.14	12	336	11	178	1	107	38	26
					1489	10/12/32	83.1	0.10		332	7					
					1553	11/16/32	82.1	0.08		339	6	168	2	104	38	24
					1611	12/14/32	82.4	0.04	11	329	0	219	2	110	39	28
					1694	1/17/33	87.4	0.07	12	305	14					
					1757	2/14/33	79.1	0.05		320	7					



TABLE 22. SURFACE WATERS ABOVE LOWER CANYON OF SANTA ANA RIVER - Continued

Number	Location and description	Location number	Elevation of ground	Discharge in cfs and feet	Laboratory number	Date	Specific conductance (K x 10 at 25 C)	Boron ppm	Per cent sodium (Ca + Mg + Na)	(constituents (parts per million))						
										Bicarbonate radioc (HCO <sub>3</sub> )	Chloride radioc (Cl)	Sulfate radioc (SO <sub>4</sub> )	Nitrate radioc (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
SI9433B-C-24	Mathis Creek (E. branch of Lone Pine Creek). S. of Cozy Dell. Sampled 200 feet below Old Cajon Highway, or 560 feet N. and 220 feet W. of the S. 1/4 corner, Sec. 12, T. 2 N., R. 6 W., S. B. B. & M. Discharge from W. P. Rowe.	SI9433-B	2,643	0.01	(1)	11/16/32	74.6	0.06	18	348	15	120	10	95	28	435
SI9442-C-24	Cajon Creek. S. of Cozy Dell. Sampled at Old Road crossing 500 feet NE. of Cajon Highway, or 200 feet W. and 1,100 feet S. of the E. 1/4 corner, Sec. 12, T. 2 N., R. 6 W., S. B. B. & M., above rising water at San Andreas Fault. Discharge from W. P. Rowe.	SI9442	2,670	0.11 0.13	(4) (4)	10/19/32 11/16/32	67.9 67.2	0.12 0.05	27	357 354	22 21	54	Tr.	80	19	448
SI9443-C-24	Cienega, S. of Cozy Dell. Sampled at foot of bluff below A. T. & S. F. Ry. at San Andreas fault, 300 feet NE. of Cajon Highway, or 1,100 feet W. and 720 feet N. of SE. corner, Sec. 12, T. 2 N., R. 6 W., S. B. B. & M. Discharge from W. P. Rowe.	SI9443	2,648	0.40	(4)	10/19/32	98.5	0.06	7	369	12	254	2	140	48	411
SI9433A-C-24	Cajon Creek. N. of Keenbrook. Sampled at U. S. G. S. gaging station, 340 feet E. and 200 feet N. of S. 1/4 corner, Sec. 12, T. 2 N., R. 6 W., S. B. B. & M., 200 feet N. of Cajon Highway. Discharge from U. S. G. S. unpublished records.	SI9433-A	2,600	16.4 7.4 5.5 3.7 1.8 1.6 1.6 1.9 2.9 2.1	833 907 906 1058 1176 1285 1400 1490 1554 1612 1695 1756	3/17/32 4/15/32 5/14/32 6/14/32 7/12/32 8/15/32 9/17/32 10/12/32 11/16/32 12/14/32 1/17/33 2/14/33	56.5 65.8 68.1 69.6 74.6 75.9 77.9 78.2 76.3 78.5 59.8 58.0	0.04 0.05 0.10 0.09 0.04 0.05 0.04 0.12 0.06 0.06 0.07 0.04	21 20 20 20 16 16 16 19 19 27 24	290 330 320 320 320 314 320 317 345 259 284	11 12 12 16 12 13 12 11 12 12 13	61 80	4 2	73 85	20 22	32 36
SI9569-E-27	Devil Canyon Creek. NW. of San Bernardino. Sampled at U. S. G. S. gaging station in NE 1/4, Sec. 6, T. 1 N., R. 4 W., S. B. B. & M. Discharge from U. S. G. S. unpublished records.	SI9569	1,950	1.1	832	3/17/32	39.0	0.01	12	210	7	31	0	54	14	12
SI9820-E-28	Waterman Canyon Creek. N. of San Bernardino. Sampled at U. S. G. S. gaging station in SW 1/4, Sec. 2, T. 1 N., R. 4 W., S. B. B. & M., 600 feet above old toll house and 1 mile NW. of Arrowhead Springs. Discharge from U. S. G. S. unpublished records and W. S. P. No. 706.	SI9820	2,150	1.2 5.5 0.1	(4) (4) 830	3/12/30 3/14/30 3/17/32	34.0 27.4 25.3	Tr. Tr. 0.02	31 11	171 149 128	9 7 7	20 19	0	30 30	6 15	23 28
SI9822-E-28	Waterman Canyon Creek. Sampled at diversion weir 400 feet E. of Arrowhead Highway, 850 feet S. of F. F. Ry. crossing, 750 feet S. of NW 1/4 corner, Sec. 14, T. 1 N., R. 4 W., S. B. B. & M. Discharge on 1/9/29 estimated by U. S. D. A. at time of sampling. Other discharges estimated by U. S. G. S.	SI9822	1,650	1	(4)	1/9/29 12/14/31 5/7 6/21 8/4 11/2 13/5 15/1 16/1	76.1 54.4 59.6 51.5 34.8 34.8 107 131 91.2 54.3	0.79 0.55 0.45 0.14 0.65 1.73 2.16 1.30 0.45	58 49 51 38 58 74 79 68 42	146 165 168 162 128 146 134 155 152	36 23 23 20 12 25 52 101 41 21	203 91 116 49 133 133 389 287 110	0 1 1 Tr. Tr. Tr. 0 1	40 38 38 30 30 36 40 37	14 12 11 6 10 10 11 12	102 63 69 33 32 185 233 140 47
SI9841-E-28	Strawberry Creek. N. of San Bernardino. Sampled just above junction with Twin Creek in NW 1/4, Sec. 12, T. 1 N., R. 4 W., S. B. B. & M. and E. of Arrowhead Springs. Discharge estimated by U. S. D. A. at time of sampling.	SI9841	1,650	3	(4)	3/14/30	22.5	0.04	29	125	7	9		24	6	16
SI9831-E-28	Strawberry Creek. S. of Arrowhead Springs. Sampled at U. S. G. S. gaging station in SE 1/4, Sec. 11, T. 1 N., R. 4 W., S. B. B. & M., at Del Rosa Water Co.'s diversion dam. Discharge from U. S. G. S. unpublished records.	SI9831	1,700	7	828	3/15/32	35.9	0.29	50	128	16	59	0	26	8	44
SI9805-F-29	City Creek. NE. of Highland. Sampled from head of City Creek Water Co. canal, 600 feet E. of City Creek Road, 4,600 feet N. of Highland Ave., in NW 1/4, Sec. 27, T. 1 N., R. 3 W., S. B. B. & M. Discharge given is combined discharge of canal and City Creek, from W. S. P. No. 721 and U. S. G. S. unpublished records.	SI9805	1,600	0.7 1.7 5.5 8.7 60.1 10.6 9.8 7.5 3.1 1.1 0.5 0.95 1.5	(1) 221 401 411 630 750 826 901 993 1173 1398 1480 1552 1692	Oct., 1918 8/12/31 11/9/31 12/14/31 1/16/32 2/16/32 3/17/32 4/15/32 5/18/32 7/14/32 8/17/32 9/15/32 10/14/32 11/14/32 1/17/33 2/13/33	30.9 27.7 23.8 20.1 13.3 16.8 16.3 20.6 20.6 25.3 29.1 26.3 25.2 21.6 17.8	0.06 0.04 0.10 0.09 0.12 0.08 0.06 0.04	28 27 27 29	127 155 156 107	10 7 4 6	19 22 13	0 0 0	28 34 24	9 11 7	19 22 17



TABLE 22. SURFACE WATERS ABOVE LOWER CANYON OF SANTA ANA RIVER Continued

Number	Location and description	Location number	Elevation of exposed foot	Discharge in second-foot	Laboratory number	Date	Specific electrical conductivity (K x 10 <sup>3</sup> at 25 C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)								
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)		
S18058-G-30	Purace Creek, NE. of East Highlands. Sampled at U. S. G. S. gaging station in NE 1/4, Sec. 1, T. 18 S., R. 3 W., S. B. B. & M., at mouth of canyon at crossing of North Fork ditch siphon. Discharge from U. S. G. S. unpublished records.	S18058	1,650	15	825	3/16/32	13.1	0.02	31	64	5	5	0	15	5	12		
S18099-G-31	Santa Ana River, NE. of Redlands. Sampled at head of North Fork Ditch and Redlands Canal, on S. side of Santa Ana Canyon Road at mouth of canyon. Discharge given is combined discharge of Southern California Edison Co., Ltd., power plant tailrace and Greenspot pipe line, from W. S. P. Nos. 706, 721, and U. S. G. S. unpublished records.	S18099	1,900	52	(5)	6/9/30		Tr.		98	3	97	Tr.	21				
				43	(5)	7/10/30		Tr.		106	4	10	Tr.	15				
				102		7/3/31	22.0			122	0	11	Tr.	24		7		
				39	214	8/12/31	22.7			125	0	26	128	0	10	Tr.	24	11
				34	286	9/10/31	23.3	0.02		125	0	19	125	0	7	Tr.	23	10
				32	431	10/13/31	23.3	0.02		123	0	23	128	0	7	0	25	10
				20	490	11/9/31	24.2	0.12		128	0	29	125	0	18	Tr.	26	7
				30	585	12/14/31	24.8	0.06		119	0	22	119	0	6			
				37	629	1/16/32	22.0	0.04		88	0	22	101	0	6			
				185	754	2/15/32	16.6	0.04		73	0	23	82	0	19		5	9
				133	822	3/16/32	18.0	0.01		76	0	22	76	0				
				136	994	5/17/32	13.9	0.14		73	0	23	82	0	19		5	9
				141	902	4/15/32	15.8	0.07		73	0	23	82	0	19		5	9
				69	1174	7/14/32	15.1	0.03		76	0	24	92	0	3	Tr.	20	6
				63	1288	8/15/32	16.9	0.05		88	0	24	92	0	3	Tr.	20	6
				55	1389	9/15/32	18.0	0.02		101	0	24	101	0	11	1	21	5
				47	1482	10/14/32	18.5	0.16		101	0	24	101	0	11	1	21	5
				43	1537	11/14/32	19.3	0.12		101	0	24	101	0	11	1	21	5
				34	1610	12/14/32	18.9	0.04		107	4	0.08	107	4				
					1693	1/16/33	21.4	0.08		107	4		107	4				
	1753	2/14/33	21.1	0.06		107	4		107	4								
S18099A-G-31	Redlands Tunnel, NE. of Redlands. Sampled from tunnel ditch where road running S. along Redlands Canal crosses ditch 300 feet S. of Santa Ana Canyon Road. Use: Irrigation.	S18099A	1,875		1420	9/22/32	37.9	0.06	38	140	5	57	1	33	8	34		
S18200-G-32	Mill Creek, NE. of Redlands. Sampled from tailrace of Southern California Edison Co., Ltd., power plant 2,200 feet SE. of Mill Creek Road, 0.6 mile NE. of 2d Ave. Discharge from Southern California Edison Co., Ltd., at time of sampling.	S18200	3,000	6.1	100	7/3/31	34.9		14	177		35	1	50	11	13		
S18232-H-32	Mill Creek, NE. of Redlands. Sampled from concrete weir on N. side of Mill Creek Road (Lagonia Ave. extended), at Zanja Ditch. U. S. G. S. analyses were sampled at their gaging station in NE 1/4, Sec. 13, T. 1 S., R. 2 W., S. B. B. & M., at mouth of canyon, below bridge on Mill Creek Road. Discharge given is combined discharge of Mill Creek and Mill Creek power canals Nos. 1, 2 and 3, from W. S. P. Nos. 706, 721, and U. S. G. S. unpublished records.	S18232	2,470	37	(5)	6/18/30		Tr.		111	2	118	Tr.	32				
				33.2	(5)	7/10/30		Tr.		135	2	128	Tr.	35				
				15.4	101	7/3/31	28.0			146	0	24	1	38	11	9		
				16.7	222	8/12/31	28.8			149	0	21	0	40	12	12		
				12.4	288	9/10/31	29.0	0.10	10	149	0	22	1	35	11	7		
				13.5	430	10/13/31	28.8	0.02		146	0							
				15.1	489	11/9/31	29.4	0.02		149	0							
				15.2	584	12/14/31	25.5	0.02	11	125	2	20	1	34	9	7		
				14.4	927	1/15/32	27.2	0.01		137	2							
				41	749	2/15/32	27.8	0.01		137	2							
				50	823	3/15/32	27.5	0.02	12	140	2	13	2	28	6	6		
				80	993	4/15/32	20.6	0.06		101	2							
				113	980	5/15/32	17.3	0.08		82	0							
				71	1088	6/21/32	19.1	0.02		95	0							
				43	1170	7/15/32	26.6	0.01	12	140	0	14	1	37	9	8		
				30	1287	8/15/32	23.6	Tr.		119	0							
				24	1397	9/15/32	25.9	0.02		125	0							
				23.5	1481	10/14/32	25.3	0.10		125	2							
				23.8	1550	11/14/32	28.0	0.04		137	2							
				15.8	1609	12/14/32	24.1	0.04	7	119	2	18	Tr.	32	7	4		
					1689	1/16/33	25.2	0.06	12	125	0	12	2	34	7	7		
	1752	2/13/33	26.6	0.02		131	2											
S18118-I-30	San Timoteo Creek, 2 1/2 miles S. of Redlands. Sampled at U. S. G. S. water stage recorder in NE 1/4, Sec. 10, T. 2 S., R. 3 W., S. B. B. & M. Discharge from U. S. G. S. unpublished records.	S18118	1,440	0.06	623	1/13/32	68.3	0.02		333	34	130	6	79	28	74		
				3.1	748	2/15/32	82.3	0.10	34	330	38							
				0.8	831	3/18/32	77.8	0.08		327	38							
				0.6	1688	1/16/33	65.1	0.05	37	320	30	47	2	61	20	62		
					1759	2/13/33	77.5	0.12		327	30							
S18003-H-28	Santa Ana River, E. of Colton. Sampled at E. St. (Colton Ave.) bridge.	S18003	970		(1)	5/15/19			34	170	15	32	0	40	10	637		
					(1)	June, 1919				40	33	56	8	58	16	663		
					(1)	Aug., 1919				26	10	33	2	49	10	626		
					(1)	Oct., 1919				34	176	14	34	0	42	10	634	
					(1)	12/2/19				23	170	10	35	0	42	10	620	
					(1)	Jan., 1920				210	17	46	0	38	10	646		
					(1)	1920				278	33	66	4	43	19	670		
					1711	2/1/33	34.6	0.06	20	159	9	34	2	41	11	17		



TABLE 22. SURFACE WATERS ABOVE LOWER CANYON OF SANTA ANA RIVER—Continued

Number	Location and description	Location number	Elevation of ground	Discharge in second-feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Constituents (parts per million)		
														Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
SI8001 G. 28	Warm Creek, S. of San Bernardino. Sampled at U. S. G. S. exchange station at Colton Ave. bridge, 0.4 mile E. of Mt. Vernon Ave. Meeks and Daley canal diverts 0.5 mile above station and San Bernardino Sewage Disposal Plant discharges into creek above station. Samples prior to Jan. 13, 1932 were taken at Riverside Water Co. intake, 2,000 feet S. except U. S. G. S. samples. Discharge given is combined discharge of Warm Creek, Meeks and Daley canal, from W. S. P. Nos. 706, 721, and U. S. G. S. unpublished records.	SI8001	1,000	-----	(1)	2/28/29	45.2	0.20	23	201	14	46	---	53	11	24
					(2)	3/6/29	44.2	0.23	23	195	12	43	---	50	11	24
					(3)	3/13/29	49.7	0.16	22	198	14	44	---	52	11	23
					(4)	1/3/30	---	---	---	204	16	---	---	---	---	---
					(5)	Jan., 1930	---	---	---	---	---	---	---	---	---	---
SI7993 H. 27	Warm Creek, E. of Colton. Sampled at U. S. G. S. exchange station at Colton Ave. bridge, 0.4 mile E. of Mt. Vernon Ave. Meeks and Daley canal diverts 0.5 mile above station and San Bernardino Sewage Disposal Plant discharges into creek above station. Samples prior to Jan. 13, 1932 were taken at Riverside Water Co. intake, 2,000 feet S. except U. S. G. S. samples. Discharge given is combined discharge of Warm Creek, Meeks and Daley canal, from W. S. P. Nos. 706, 721, and U. S. G. S. unpublished records.	SI7993	950	39	(1)	5/5/19	---	---	40	150	18	36	0	37	8	39
					(2)	June 1919	---	---	35	162	17	40	2	40	9	34
					(3)	7/8/19	---	---	27	218	15	41	2	48	11	29
					(4)	Sept. 1919	---	---	27	189	15	44	3	54	9	28
					(5)	Oct., 1919	---	---	23	204	17	52	3	54	12	24
					(6)	Dec., 1919	---	---	22	201	12	46	2	56	10	24
					(7)	Jan., 1920	---	---	42	195	17	42	2	38	9	44
					(8)	Feb., 1920	---	---	45	192	14	41	4	30	10	43
					(9)	1/3/30	---	---	---	---	25	43	---	58	12	25
					(10)	1/7/30	47.8	0.21	22	186	26	25	---	52	15	42
					(11)	7/10/30	---	---	33	183	34	35	21	50	12	42
					(12)	9/15/31	57.3	0.15	33	177	41	31	---	53	12	42
					(13)	10/13/31	57.3	0.15	33	180	21	---	---	---	---	---
					(14)	11/9/31	46.2	0.06	21	189	16	67	---	59	14	26
					(15)	5/8/32	50.2	0.17	21	180	23	---	---	---	---	---
					(16)	1/13/32	50.2	0.11	28	180	20	---	---	---	---	---
					(17)	2/15/32	57.5	0.13	---	---	---	---	---	---	---	---
					(18)	3/16/32	49.4	0.17	28	182	23	---	---	---	---	---
					(19)	4/16/32	47.3	0.19	---	---	---	---	---	---	---	---
					(20)	5/16/32	47.5	0.11	---	---	---	---	---	---	---	---
					(21)	6/20/32	47.5	0.21	---	---	---	---	---	---	---	---
					(22)	7/16/32	49.2	0.17	33	177	30	30	---	51	11	39
					(23)	8/17/32	50.2	0.17	---	---	---	---	---	---	---	---
					(24)	9/14/32	51.5	0.22	---	---	---	---	---	---	---	---
					(25)	10/14/32	51.5	0.19	---	---	---	---	---	---	---	---
					(26)	11/14/32	53.5	0.19	---	---	---	---	---	---	---	---
					(27)	12/14/32	41.3	0.12	22	156	18	115	11	67	15	39
					(28)	1/17/33	58.6	0.16	---	---	---	---	---	---	---	---
					(29)	2/16/33	52.5	0.16	---	---	---	---	---	---	---	---
					(30)	5/16/32	43.3	0.14	21	198	11	44	2	55	13	24
					(31)	6/20/32	43.3	0.07	---	---	---	---	---	---	---	---
SI7993A-H-27	Meeks and Daley Canal, E. of Colton. Sampled at Colton Ave. crossing, 0.55 mile E. of Mt. Vernon Ave. Diverts from Warm Creek 0.5 mile above Colton Ave.	SI7993	955	-----	(1)	11/19/28	35.5	0.10	28	155	12	31	---	45	---	430
					(2)	6/28/30	40.0	0.05	27	214	25	47	---	56	12	432
					(3)	9/3/30	40.0	0.07	17	193	16	48	---	56	13	412
					(4)	10/1/30	46.3	0.09	27	214	21	48	---	59	12	432
					(5)	13/1/30	48.6	0.09	20	183	18	45	---	53	12	420
					(6)	1/7/31	44.8	0.03	20	183	14	45	---	54	11	418
					(7)	2/7/31	39.3	0.03	10	152	14	30	---	56	11	418
					(8)	4/5/31	42.3	0.05	25	201	27	47	---	57	11	420
					(9)	5/1/31	48.2	0.02	25	165	12	37	---	51	10	416
					(10)	5/1/31	40.2	0.01	23	165	12	36	---	53	10	423
					(11)	7/2/31	52.3	0.01	23	204	28	48	17	57	12	433
					(12)	8/1/31	52.3	0.05	27	23	28	49	10	57	19	---
					(13)	8/1/31	50.1	0.03	20	185	21	47	---	53	11	433
					(14)	8/11/31	40.3	0.06	20	185	25	40	13	53	12	432
					(15)	10/3/31	48.3	0.03	23	165	20	47	---	59	12	425
					(16)	11/5/31	40.2	0.04	23	173	20	36	13	53	18	24
					(17)	12/2/31	39.3	0.03	24	173	20	36	---	53	18	24
					(18)	1/2/32	40.2	0.05	26	173	14	45	---	45	10	430
					(19)	4/30/32	39.3	0.03	30	173	16	45	---	45	10	430
					(20)	4/30/32	39.3	0.03	30	229	21	45	---	45	10	430
					(21)	6/1/32	51.1	0.03	14	214	21	41	13	63	15	41
					(22)	9/1/32	51.3	0.02	31	214	21	41	13	63	15	41
					(23)	8/2/32	51.6	0.07	24	230	23	53	13	61	13	34
					(24)	8/2/32	48.2	0.04	24	210	23	43	13	57	14	29
					(25)	10/7/32	50.2	0.08	19	217	20	40	11	64	14	29
SI7992 J. 27	Gage Canal Co. canal, Riverside. Sampled at 8th St. crossing. Use: Irrigation.	SI7992	1020	-----	(1)	11/2/32	50.4	0.08	27	207	27	46	11	54	13	436
					(2)	12/1/32	50.4	0.05	27	207	27	46	11	54	13	436
					(3)	12/1/32	40.5	0.05	27	207	27	46	11	54	13	436



TABLE 22. SURFACE WATERS ABOVE LOWER CANYON OF SANTA ANA RIVER—Continued

Number	Location and description	Location number	Elevation of ground	Discharge in second-foot	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>6</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)							
										Bear- bonate radicle (HCO <sub>3</sub> )	Chlo- ride radicle (Cl)	Sul- phate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Mage- nesium (Mg)	Sodium (Na)	
S17022-J-26	Riverside Water Co. canal, Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	S17022	880		(d)	11/19/28	44.6	0.19	52	198	14	40	43	43	12	54	
					(d)	6/28/30	51.2	0.98	32	214	25	57	54	11	43		
					(d)	8/12/30	51.2	0.12	28	217	23	35	54	11	43		
					(d)	9/3/30	51.1	0.10	17	225	18	47	58	17	20		
					(d)	10/1/30	47.9	0.07	29	207	21	63	55	12	36		
					(d)	11/1/30	44.3	0.37	26	201	21	37	51	11	28		
					(d)	12/1/30	48.9	0.11	21	195	16	47	55	11	28		
					(d)	1/7/31	49.0	0.09	18	189	14	47	54	12	31		
					(d)	1/30/31	46.9	0.14	19	195	16	51	55	12	31		
					(d)	3/2/31	48.8	0.12	19	189	12	59	56	12	31		
					(d)	4/1/31	49.6	0.03	35	192	14	47	53	10	43		
					(d)	5/1/31	46.3	0.11	29	204	18	44	52	10	33		
					(d)	6/2/31	46.6	0.07	26	186	20	33	51	10	33		
					(d)	7/1/31	50.3	0.09	19	204	27	21	58	11	21		
					(d)	8/1/31	53.0	0.12	31	238	27	41	56	13	36		
S17965-H-27	Santa Ana River, S. of Colton. Sampled at La Cadena Ave. bridge.	S17965	895		(d)	9/2/31	50.9	0.14	30	201	25	30	11	56	10	36	
					(d)	10/3/31	48.5	0.16	34	195	30	36	14	49	11	29	
					(d)	11/5/31	42.8	0.13	27	183	20	31	48	9	27		
					(d)	12/2/31	49.3	0.14	28	196	25	49	14	56	11	34	
					(d)	1/30/32	49.7	0.12	25	186	23	55	16	57	12	29	
					(d)	4/5/32	48.0	0.18	22	198	21	43	14	57	13	25	
					(d)	4/30/32	51.1	0.28	17	207	21	31	19	57	15	20	
					(d)	6/1/32	48.3	0.16	24	204	16	50	14	63	14	41	
					(d)	7/2/32	55.8	0.09	30	223	36	57	14	63	16	32	
					(d)	8/2/32	59.0	0.09	23	229	39	45	18	66	16	32	
					(d)	9/2/32	58.0	0.10	24	223	37	49	18	70	13	33	
					(d)	10/7/32	49.6	0.21	28	201	27	40	13	54	12	33	
					(d)	11/2/32	48.0	0.14	27	217	24	38	22	58	13	34	
					(d)	12/1/32	46.6	0.15	26	195	22	44	13	54	12	34	
				S17000-J-26	Santa Ana River, W. of Riverside. Sampled 200 feet W. of E. abutment and 100 feet N. of Rubidoux Bridge. Discharge estimated by D. W. R. at time of sampling.	S17000	765	4	1392	9/19/32	62.7	0.17	32	302	36	26	Tr.
	1713	2/1/33	61.7					0.14		247	43						
S16952-J-25	Santa Ana River, NW. of Riverside. Sampled at U. S. G. S. gaging station in Riverside Narrows 3,000 feet downstream from U. P. R. R. Bridge. D. W. R. Lab. No. 779 was sampled on S. side, No. 780 as a composite across stream, and No. 781 on N. side of river. U. S. D. A. analysis on 3/9/32 is duplicate of D. W. R. Lab. No. 780 from same sample. Discharge from W. S. P. Nos. 706, 721 and U. S. G. S. unpublished records.	S16952	690	33	(*)	7/10/30		0.02		313		528	12	88			
				33	(*)	11/12/30		0.08		310		568	13	85			
				30	298	9/15/31	83.7	0.15	33	305	85	47	11	83	21	65	
				31	427	10/13/31	79.6	0.15	34	302	84	41	6	83	18	67	
				32	492	11/9/31	81.1	0.09		308	84						
				56	624	12/14/31	72.9	0.13	32	271	62	53					
				77	582	1/15/32	68.7	0.13		259	59						
				57	756	2/15/32	80.8	0.13		302	77						
				52	779	3/9/32	81.1	0.14	32	305	84	52					
				52	780	3/9/32	81.1	0.16		305	84						
				52	781	3/9/32	81.1	0.12		305	84						
				52	(d)	3/9/32	83.8		30	308	80	49	12	85	20	63	
				45	821	3/14/32	80.4	0.12		305	84						
				33	906	4/15/32	84.3	0.14		308	89						
				32	1003	5/19/32	85.1	0.15	34	299	94						
S16923-J-24	Santa Ana River, N. of Arlington. Sampled at end of Tyler St., 4,000 feet downstream from Pedley Bridge.	S16923	650		(*)	10/13/31	92.3										
				S16554-J-23	Santa Ana River, N. of Norco. Sampled at U. S. G. S. gaging station, 0.5 mile above Hammer Ave. bridge. Discharge from U. S. G. S. unpublished records.	S16554	575	37	1484	10/13/32	80.0	0.16		284			
S16845-J-23	Santa Ana River, N. of Norco. Sampled at Hammer Ave. bridge, Bailey No. 2730f. Lab. No. 1004 was sampled from the S. side, No. 1005 is a composite across the stream, and No. 1006 was sampled from the N. side of the river. Discharge given is from the U. S. G. S. Hammer Ave. gaging station as published in W. S. P. 721 and U. S. G. S. unpublished records.	S16845	565	31	(*)	9/13/31	83		39	256	83	65		73	14	71	
				35	(*)	10/13/31	81.4										
				73	(*)	11/28/31	69		26	217	64	50		70	15	38	
				36	1004	5/19/32	77.0	0.18		241	94						
				36	1005	5/19/32	76.2	0.21		235	92						
				36	1006	5/19/32	76.1	0.16		238	90						
				25	1377	9/15/32	71.9	0.18	41	214	85	43		58	16	67	



Number	Location and description	Location number	Elevation of ground, feet	Discharge in second-foot	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>-3</sup> at 25°C)	Boron ppm	Per cent sodium (Na + Me + Na)	(Constituents (parts per million))							
										Bicarbonate (HCO <sub>3</sub> )	Chloride (Cl)	Sulfate (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	
S16835-K-22	Santa Ana River, N. of Norco. Sampled 0.5 mile downstream from Hammer Ave. bridge, Lab. No. 782 is a composite sample across the stream, No. 783 was from the N. side, and No. 784 from the S. side of the river. Discharge given is from measurement at time and point of sampling by U. S. G. S. unpublished miscellaneous record.	S16835	555	65 65 65	782 783 784	3/ 9/32 3/ 9/32 3/ 9/32	81.0 77.5 79.4	0.11 0.14 0.11		302 296 299	89 80 85						
S16807-K-22	Santa Ana River, NW. of Corona. Sampled at U. S. G. S. gaging station, 600 feet upstream from Auburndale Road bridge (River Road), Bailey No. 3710C. Lab. Nos. 785, 1007, and 1380 were sampled from S. side of river; Lab. Nos. 786, 1008 and 1379 were sampled as composite across stream; Lab. Nos. 787, 1009, 1378, and U. S. G. S. analysis on 7/10/30 were sampled from N. side of river. Discharge from W. S. P. Nos. 706, 721, and U. S. G. S. unpublished records and miscellaneous records.	S16807	520	40 50 40 48 129 84 84 57 57 57 43 43 43 47	(e) (e) (e) (e) (e) 785 786 787 1007 1008 1378 1379 1380 1485	7/10/30 9/13/31 10/13/31 11/28/31 3/ 9/32 3/ 9/32 3/ 9/32 5/10/32 5/10/32 5/10/32 9/15/32 9/15/32 9/15/32 10/13/32	72 71 71 68 72.8 70.5 65.0 65.2 65.6 60.3 59.1 62.9 64.6 70.1	0.07 0.12 0.08 0.10 0.16 0.14 0.13 0.09 0.12 0.14		252 250 238 238 232 284 277 268 235 238 33 220 220 263	88 67 68 66 60 73 67 59 42 67 33 55 55 67	168 50 41 41 51 43 43 35 42 34 60 31 31 40	5 5 5 5 6 7 7 6 6 3 6 6 6	76 68 66 69 78 71 62 60 54 55 70 16 15 17	51 48 42 47 59 48 49 59		
S16798-K-22	Santa Ana River, NW. of Corona. Sampled 1.5 miles downstream from Auburndale Road bridge (River Road), at O. C. F. C. D. gaging station. Bailey No. 3715J.	S16798	400	56	(e)	9/13/31 10/13/31 11/28/31	74 71 66		31	247	67	48		70	16	40	
S16789-K-21	Lillibridge Weir, NW. of Corona. Sampled at O. C. F. C. D. gaging station 129 at weir in Lillibridge ditch, 2,200 feet NE. of Yorba St., extended, from point on Yorba St. 3,300 feet NW. of A. T. & S. F. Ry. Bailey No. 3716B. The Lillibridge pump delivers water from Santa Ana River above A. T. & S. F. Ry. bridge and below Auburndale bridge.	S16789	500		(e)	9/13/31 10/13/31	139 137.2		35	329	183	111		124	26	104	
S16779B-K-21	Santa Ana River, NW. of Corona. Sampled 300 feet upstream from intersection of Yorba St., extended, Bailey No. 3716H. Sample on 9/13/31 was taken from E. side of river. Sample on 11/28/31 is a composite sample across stream.	S16779B	480		(e)	9/13/31 11/28/31	116 70				144 66						
S16779-K-21	Santa Ana River, N. of Prado. Sampled at U. S. G. S. recorder stilling well No. E-4, on S. edge of stream, 500 feet downstream from intersection of Yorba St. extended.	S16779	477		1384	9/15/32	71.0	0.13		232	80						
S16156-M-27	Cajaleo Creek, S. of Riverside. Sampled from creek 600 feet S. of the center of Sec. 7, T. 4 S., R. 4 W., S. B. & M. In Cajalco Canyon.	S16156	1,543		(d)	4/ 3/33	356	0.16	50	314	819	390	Tr.	198	102	421	
S14904-O-24	Cold Water Creek, SE. of Corona. Sampled at Temescal Water Co. diversion channel at road culvert at Glenn Ivy Inn. Tributary to Temescal Creek.	S14904	1,300		719	2/15/32	24.2	0.06	19	107	4	24	0	34	6	12	
S15002-L-23	Temescal Creek, E. of Corona. Sampled at S. side of 6th St. bridge, Lab. No. 720 taken from stream on E. side of channel, Lab. No. 729 was taken from stream on W. side of channel, which was mostly (originally) storm drainage. Discharge estimated at time of sampling by D. W. R.	S15002	620	0.02 0.05	720 729	2/15/32 2/15/32	45.4 97.3	0.02 0.06		116 228	30 21						
S16779A-K-21	Santa Ana River, NW. of Corona. Sampled from left or E. bank 300 feet below Temescal Creek active channel, 1,600 feet SW. of Yorba St. from point 3,600 feet NW. of A. T. & S. F. Ry. Bailey No. 3716L.	S16779A	475		(e)	9/13/31 10/13/31 11/28/31	115 87.6 72		36	302	144	85		96	25	90	
S15860-L-21	Santa Ana River, NW. of Corona. Sampled from N. side of Rincon bridge (Prado Road crossing) over river 1,000 feet NW. of Santa Ana Canyon State Highway. Bailey No. 3720D.	S15860	460		(e)	9/13/31 11/28/31	88 70		22	226	71	49		71	20	34	
S1952-J-19	Chino Creek Tributary, SW. of Chino. Sampled beside Carbon Canyon Road, 1.7 miles SW. of Pine Line Road.	S1952	700		796	3/10/32	217	0.24	43	552	220	485	0	129	100	255	



TABLE 22. SURFACE WATERS ABOVE LOWER CANYON OF SANTA ANA RIVER - Continued

Number	Location and description	Location number	Elevation of ground	Discharge in sec' out-foot	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
S16777-K-21	Reynolds Slough on Mill Creek, tributary to Chino Creek. W. of Norco. Sampled at dam at S. end of Chino Gun Club duck lake 3,100 feet S. of McCarty Ave., 3,000 feet E. of Serrano Road.	S16777	510		(*)	9/23/31	58				14					
					(*)	10/5/31	55		29		21	35		64	21	45
						11/24/31	69				28					
S15850-L-21	Chino Creek, NW. of Prado. Sampled at U. S. G. S. gaging station, 100 feet downstream from Prado Road bridge. Discharge from U. S. G. S. unpublished records.	S15850	460	22	792	3/9/32	98.6	0.09	24	351	27	232	6	122	34	64
				1	921	4/20/32	87.6	0.18		357	36					
				4	1010	5/19/32	97.5	0.17	28	396	27	177	6	114	29	74
				1	1052	6/16/32	93.2	0.12		375	28					
				0	1167	7/14/32	66.1	0.08	31	308	34	49	1	70	18	55
				0	1290	8/15/32	64.2	0.08		*302	37					
				0	1388	9/15/32	64.5	0.08	31	302	36	39	1	68	18	51
				0	1457	10/13/32	65.0	0.13		302	36					
				0	1613	12/20/32	86.7	0.10	28	332	27	155	6	101	26	64
				5	1685	1/17/33	71.6	0.10	36	226	28	137	6	64	19	62
				44	1802	2/23/33	85.8	0.06		332	23					
S15851-L-21	Santa Ana River, SW. of Prado. Sampled at U. S. G. S. gaging station, 1,350 feet downstream from A. T. & S. F. Ry. bridge, or 450 feet N. of Santa Ana Canyon State Highway near River Bank Camp. Bailey No. 3720N. Lab. Nos. 788, 1011 and 1387 were sampled from S. side of river. Lab. Nos. 789, 1012 and 1386 were sampled as composite across stream. Lab. Nos. 790, 1013 and 1385 were sampled from N. side of river. Discharge from W. S. P. No. 721 and U. S. G. S. unpublished records.	S15851	450	64	(*)	9/13/31	96		37	277	101	75		84	17	77
				67	(*)	10/10/31	89		32	259	99	69		86	18	62
				68	(*)	10/13/31	90.6				93					
				146	(*)	11/28/31	67		26	214	64	57		71	15	39
				129	788	3/9/32	79.9	0.11	31	290	80	65	6	84	22	61
				129	789	3/9/32	82.2	0.12		299	73					
				129	790	3/9/32	84.9	0.11	28	311	62	119	4	93	27	63
				82	1011	5/19/32	77.8	0.22	35	262	85	61	2	75	19	67
				82	1012	5/19/32	77.8	0.18		271	80					
				82	1013	5/19/32	78.7	0.16	33	278	75	72	6	78	20	64
				60	1385	9/15/32	78.0	0.15	38	229	87	61	6	62	20	67
				60	1386	9/15/32	79.9	0.12		250	89					
				60	1387	9/15/32	80.0	0.14	36	247	91	63	6	71	19	67
				56	1486	10/13/32	76.6	0.16		271	75					
S15822-L-20	Santa Ana River, SW. of Prado. Sampled at Riverside-Orange County line in lower Santa Ana Canyon, 3 miles below Rincon bridge at Green River Camp. Lab. Nos. 793, 1014 and 1391 were sampled from S. bank of river. Lab. Nos. 794, 1015 and 1390 were sampled as composite across river. Lab. Nos. 795, 1016 and 1389 were sampled from N. bank of river. U. S. D. A. analysis on 9/15/31 is duplicate of D. W. R. Lab. No. 299.	S15822	410	370	(1)	3/2/19			23	*250	50	52	9	69	20	35
				395	(1)	5/3/19			25	*256	50	50	0	66	18	37
				120	(1)	5/12/19			34	*244	69	60	9	73	16	60
					(1)	May 1919			44	230	80	67	10	71	10	80
					(1)	Oct. 1919			34	153	12	77	2	37	11	33
				70	(1)	6/8/30		0.05		*265	80	93	4	4	76	
				50	(1)	7/10/30		0.05		*221	62	139	4	62		
				35	(1)	8/7/30		0.05		272	107	177	1	77		
				49	(1)	9/11/30		0.05		*244	105	174	6	74		
				72	(1)	10/8/30		0.01		*247	103	174	10	80		
				53	(1)	11/12/30		0.1		271	88	171	9	80		
				53	(1)	9/15/31	82.6	0.17	37	262	91	64	9	74	19	24
				53	299	9/15/31	88.5	0.17	32	*271	92	65	6	75	24	62
				64	426	10/13/31	80.0	0.11	34	271	89	59	6	76	21	66
					(b)	10/13/31	89.4				91					
				125	581	12/14/31	77.0	0.16	32	284	71	62	6	79	18	58
				190	626	1/15/32	75.9	0.13		271	73					
				243	755	2/15/32	86.1	0.10		293	69					
				141	763	3/9/32	82.3	0.08		299	75					
				141	794	3/9/32	82.7	0.15	30	302	75	88	6	89	25	63
				141	795	3/9/32	82.9	0.12		302	75					
				68	923	4/20/32	80.3	0.22		271	89					
				77	1014	5/19/32	78.3	0.14		265	82	60	6	76	20	64
				77	1015	5/19/32	77.7	0.19	34	265	82					
				77	1016	5/19/32	77.7	0.21		*250	98					
				64	1051	6/16/32	82.4	0.16		*241	99					
				49	1166	7/14/32	82.4	0.19		*247	94					
				49	1291	8/15/32	81.0	0.16		*235	91					
				60	1389	9/15/32	78.1	0.31		235	91					
				60	1390	9/15/32	78.9	0.13	37	235	87	66	6	68	21	67
				60	1391	9/15/32	78.5	0.14		235	89					
				67	1488	10/13/32	77.5	0.20		271	75					
				120	1584	12/13/32	80.6	0.14	33	278	75	69	7	78	21	63
				440	1684	1/17/33	73.5	0.12	36	220	76	71	7	68	18	64
				94	1803	2/23/33	78.3	0.10		*281	69					



TABLE 22. SURFACE WATERS ABOVE LOWER CANYON OF SANTA ANA RIVER Continued

Number	Location and description	Location number	Elevation of ground	Discharge in second-feet	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>-3</sup> at 25°C.)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Conductivity (part per million)						
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
S15812-I-20	Anaheim Water Co. canal intake in Lower Santa Ana Canyon. Sampled at intake from the N. side of Santa Ana River, 1.1 mile downstream from Riverside-Orange County line, O. C. F. C. D. gaging station 124. Occasional measurements only. Use: Irrigation.	S15812	395	-----	(1)	Oct. 1918	-----	-----	39	243	87	72	6	62	19	669
				-----	(6)	Oct. 1918	-----	-----	38	238	81	70	3	70	19	670
				-----	(5)	3/13/19	-----	-----	43	380	63	70	5	58	12	668
				-----	(6)	7/14/19	-----	-----	42	226	89	78	18	63	18	680
				-----	(6)	Oct. 1919	-----	-----	41	222	87	78	16	62	17	673
				-----	(6)	3/ 8/29	-----	-----	-----	-----	69	-----	-----	-----	-----	-----
				-----	(6)	4/15/29	-----	-----	-----	-----	71	-----	-----	-----	-----	-----
				-----	(6)	6/17/29	-----	-----	-----	-----	92	-----	-----	-----	-----	-----
				-----	(6)	8 21 29	-----	-----	-----	-----	95	-----	-----	-----	-----	-----
				-----	(1)	10 29 29	-----	-----	-----	-----	82	-----	-----	-----	-----	-----
S15762-I-19	Santa Ana Valley Irrigation Co. canal intake in lower Santa Ana Canyon. Sampled at intake from the S. side of Santa Ana River, 4.2 miles downstream from Riverside-Orange County line, O. C. F. C. D. gaging station 123. Occasional measurements only. Use: Irrigation.	S15762	345	-----	(1)	12 19 29	-----	-----	-----	-----	90	-----	-----	-----	-----	-----
				-----	(6)	1 13 30	-----	-----	-----	75	-----	-----	-----	-----	-----	-----
				-----	(6)	2 14 30	-----	-----	-----	74	-----	-----	-----	-----	-----	-----
				-----	(6)	3 5 30	-----	-----	-----	70	-----	-----	-----	-----	-----	-----
				-----	(6)	4 15 30	-----	-----	-----	80	72	2	73	21	77	77
				-----	(1)	4 15 30	82.9	-----	38	257	96	-----	-----	-----	-----	-----
				-----	29	6/ 6/31	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
				-----	28	6/ 6/31	83.4	-----	38	256	96	75	2	73	21	75
				-----	90	6/19/31	81.4	-----	39	238	101	72	0	67	24	78
				-----	125	7 15 31	81.8	-----	39	238	99	105	6	71	22	80

<sup>a</sup> Includes small equivalent quantity of Carbonate (CO<sub>3</sub>).<sup>b</sup> Sulfate (SO<sub>4</sub>) determined by turbidity method.<sup>c</sup> Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.<sup>d</sup> Analysis by United States Department of Agriculture, Laboratory, Riverside, California.<sup>e</sup> Analysis by United States Geological Survey.<sup>f</sup> Analysis by University of California, Graduate School of Tropical Agriculture and Citrus Experiment Station, Riverside, California.<sup>g</sup> Analysis by Edward S. Babcock and Sons, Riverside, California. Data from Case No. 22046 (Corona Foothill Lemon Co., a Corp., vs. C. E. Lillibridge, et al), in the Superior Court of the State of California, in and for the County of Riverside.<sup>h</sup> Analysis by Edward S. Babcock and Sons, Riverside, California.<sup>i</sup> Analysis by Agricultural Laboratory, Anaheim, California.



TABLE 23. SEWAGE EFFLUENT SOUTH COASTAL BASIN

Number	Location and description	Location number	Average discharge in second computed from total yearly flow	Laboratory number	Date	Time of day	Specific electrical conductance (Kx 10 <sup>3</sup> at 25° C)	Boron ppm	Percent sodium Na + 100 Ca + Mg	Constituents (parts per million)					
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)
R819-N-9	Los Angeles County Sanitation District Sewage Disposal Plant, Harbor City; 0.15 mile W. of Figueroa St., 0.20 mile N. of Lomita Blvd. Method of treatment; Imhoff tanks followed by treatment by the activated sludge process. Effluent chlorinated. Discharge into Nigger Slough, 4,000 feet above Alameda St. crossing. Discharge obtained from owner.	R819	15.5	(e)	7/30/30	-----	146	0.53	55	537	135	130	-----	73	26
				(e)	7/30/30	-----	149	0.50	62	555	135	133	-----	74	27
				(e)	9/ 5/30	-----	157	0.53	66	573	179	117	-----	72	26
				(e)	10/ 1/30	-----	154	0.55	67	570	172	147	-----	72	24
				(e)	11/ 1/30	-----	133	0.46	61	488	137	120	-----	73	24
			18.8	(e)	12/ 1/30	-----	152	0.56	64	546	154	128	-----	72	26
				(e)	1/ 9/31	-----	167	0.75	70	518	151	217	-----	62	24
				(e)	2/ 7/31	-----	175	0.61	69	543	178	240	-----	68	30
				(e)	3/ 8/31	-----	186	0.76	70	546	202	201	-----	69	27
				(e)	3/31/31	-----	203	1.03	80	811	135	228	-----	62	23
				(e)	4/ 2/31	1:00 a.m.	175	0.75	72	659	147	160	-----	62	25
				(e)	4/ 2/31	5:00 a.m.	173	0.69	72	610	156	159	-----	59	25
				(e)	4/ 2/31	9:00 a.m.	167	0.69	71	604	162	167	-----	63	25
				(e)	4/ 2/31	1:00 p.m.	163	0.73	70	604	153	168	-----	63	25
				(e)	4/ 2/31	5:00 p.m.	163	0.68	69	558	149	172	-----	65	24
				(e)	4/ 2/31	9:00 p.m.	167	0.71	70	589	149	179	-----	63	25
				(e)	5/12/31	3:00 p.m.	177	0.60	69	610	172	184	-----	71	27
R166S-K-13	City of Whittier Sewage Disposal Plant, SE. of Santa Fe Springs, 0.15 mile S. of Leffingwell Road, 0.1 mile E. of Leland St., 0.15 mile W. of Meyer Road. Sampled at outlet to creek. Method of treatment: Imhoff tanks, sprinkling filters and secondary tank. Used for irrigation on sewer farm and surplus discharged into creek S. of plant. Discharge for years 1929, 1930 and 1932 were estimated by the Division of Water Resources from water sales. Discharge for 1932 was estimated by City Engineer from eight months metered flow.	R166S	20.2	(e)	6/ 2/31	-----	158	0.51	65	592	153	127	-----	70	28
				(e)	7/ 1/31	-----	150	0.55	66	537	165	127	-----	70	24
				(e)	10/27/32	-----	151	0.55	63	537	160	112	-----	81	22
				(e)	12/14/32	Midnight	165	-----	-----	561	158	-----	-----	-----	-----
				(e)	12/15/32	6:00 a.m.	161	-----	-----	546	160	-----	-----	-----	-----
			1.6	1595	12/15/32	Noon	157	0.52	59	540	151	85	-----	69	26
				1596	12/15/32	-----	158	-----	-----	558	146	-----	-----	-----	-----
				1597	12/15/32	6:00 p.m.	158	-----	-----	555	165	-----	-----	-----	-----
				1598	12/15/32	Midnight	180	-----	-----	598	142	-----	-----	-----	-----
				1599	12/16/32	6:00 a.m.	186	0.81	78	5747	142	146	-----	45	21
			1.6	(e)	12/10/29	-----	118	0.24	51	375	135	72	-----	61	31
				(e)	1/ 2/30	-----	91	0.23	35	262	97	65	-----	79	12
				(e)	1/ 2/30	-----	96	0.35	48	243	99	60	-----	59	18
				(e)	1/28/30	-----	96	0.35	48	247	78	55	-----	70	14
				(e)	7/ 6/31	-----	81	0.33	48	320	62	-----	-----	-----	-----
R281-C-12	Pasadena Sewage Disposal Plant, SE. of Alhambra; 0.55 mile N. of Valley Blvd., 1.000 feet W. of Ramona Drive (New Ave.). Method of treatment: Fine screening, followed by treatment by the activated sludge process. Effluent chlorinated. Sewage effluent discharged into Rio Hondo. Discharge obtained from Pasadena Water Department.	R281	12.5	(e)	12/10/29	-----	78	0.34	49	159	91	44	-----	34	17
				(e)	12/10/29	-----	77	0.34	48	159	92	40	-----	33	18
				(e)	1/ 2/30	-----	77	0.35	54	214	82	40	-----	39	13
				(e)	1/28/30	-----	85	0.35	52	195	114	51	-----	42	19
				(e)	1/28/30	7:00 a.m.	74	0.43	-----	186	84	-----	-----	-----	-----
			13.6	1600	12/15/32	7:00 a.m.	70	0.41	-----	149	76	-----	-----	-----	-----
				1601	12/15/32	3:00 p.m.	76	0.43	-----	174	78	-----	-----	-----	-----
				1602	12/15/32	3:00 p.m.	75	0.50	-----	210	78	-----	-----	-----	-----
				1603	12/15/32	7:00 p.m.	79	0.50	62	232	96	46	-----	32	13
				1604	12/15/32	8:22 p.m.	82	0.50	-----	232	87	-----	-----	-----	-----
			1.3	1605	12/16/32	3:00 a.m.	79	0.45	58	198	87	-----	-----	-----	-----
				1606	12/16/32	7:00 a.m.	75	0.45	58	159	73	36	-----	29	13
				1607	12/16/32	11:00 a.m.	70	0.45	58	159	73	36	-----	29	13
				(e)	12/10/29	-----	70	0.39	66	226	105	32	-----	37	8
				(e)	12/10/29	-----	83	0.39	67	237	103	30	-----	45	5
R3204-H-18	City of Pomona Sewage Treatment Plant, W. of Pomona; 100 feet S. of S. P. R., 350 feet W. of Rosclawn Ave. Method of treatment: Imhoff tanks followed by treatment by the activated sludge process. Effluent chlorinated. Used for irrigation near Walnut. Discharge obtained from City Engineer.	R3204	1.4	(e)	1/ 2/30	-----	82	0.99	59	171	103	36	-----	41	8
				(e)	1/27/30	-----	78	0.95	44	140	92	38	-----	37	15
				(e)	8/22/30	-----	70	2.84	53	174	69	29	-----	35	10
				(e)	8/23/30	-----	82	0.27	50	134	103	32	-----	39	11
				(e)	10/17/30	-----	82	0.31	61	180	108	15	-----	36	8
			1.5	1619	12/22/32	7:00 a.m.	74	0.29	61	186	83	32	-----	37	9
				1620	12/22/32	9:00 a.m.	72	0.27	60	174	82	-----	-----	-----	-----
				1621	12/22/32	Noon	67	0.29	60	143	76	30	-----	37	9
				1622	12/22/32	4:00 p.m.	71	0.27	-----	119	80	-----	-----	-----	-----
				1623	12/23/32	7:00 a.m.	76	0.28	62	156	98	-----	-----	-----	-----
			7.0	1624	12/23/32	9:00 a.m.	78	0.27	62	156	98	-----	-----	39	10
				1625	12/23/32	Noon	76	0.29	62	149	91	-----	-----	-----	-----
				1626	12/23/32	4:00 p.m.	75	0.28	-----	122	87	-----	-----	-----	-----
				1627	12/27/32	11:45 a.m.	66	0.28	53	107	59	28	-----	41	11
				1641	12/27/32	3:45 p.m.	312	2.45	-----	589	690	-----	-----	-----	-----
R13260-P-15	Orange County Cities Joint Outfall Sewer System, SW. of Santa Ana; 700 feet S. of Ellis Ave., 100 feet W. of Vernon St., 50 feet W. of west levee of Santa Ana River. Sampled at head of outfall to ocean, 100 feet S. of screening plant. Method of treatment: Pre-chlorination and fine screening. Effluent discharged into ocean. Discharge obtained from O. E. Seward, Anaheim, California. Waste Water Disposal Co. discharges into sewer system at Orangefhorpe and Euclid Avenues. For analysis see Table 24. "Industrial Waste Water in South Coastal Basin."	R13260	1.3	1642	12/28/32	7:30 a.m.	481	4.56	-----	601	1294	-----	-----	-----	-----
				1643	12/28/32	Noon	395	3.52	81	570	976	49	-----	77	32
				1644	12/28/32	3:45 p.m.	261	1.88	74	586	517	56	-----	70	30
				1645	12/29/32	7:30 a.m.	533	5.30	-----	604	1448	-----	-----	-----	-----
				1646	12/29/32	Noon	340	2.97	-----	500	809	-----	-----	-----	-----
			1.5	1647	12/29/32	3:40 p.m.	284	2.11	86	546	619	-----	-----	-----	-----
				1648	12/30/32	10:00 a.m.	570	5.74	-----	583	1562	55	-----	90	44
				1649	12/30/32	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
				1650	12/30/32	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
				1651	12/30/32	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
			1.6	1652	12/30/32	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
				1653	12/30/32	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
				1654	12/30/32	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
				1655	12/30/32	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
				1656	12/30/32	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
			1.7	1657	12/30/32	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
				1658	12/30/32	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
				1659	12/30/32	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
				1660	12/30/32	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
				1661	12/30/32	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----



TABLE 23. SEWAGE EFFLUENT—SOUTH COASTAL BASIN—Continued

Number	Location and description	Location number	Average discharge in second feet computed from total yearly flow	Laboratory number	Date	Time of day	Specific electrical conductance ( $K \times 10^6$ at 25° C)	Boron ppm	Per cent sodium $\text{Na} \times 100 / (\text{Ca} + \text{Mg} + \text{Na})$	Constituents (parts per million)						
										Bicarbonate radicle ( $\text{HCO}_3$ )	Chloride radicle (Cl)	Sulfate radicle ( $\text{SO}_4$ )	Nitrate radicle ( $\text{NO}_3$ )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
R15921-L-22	City of Corona Sewage Disposal Plant. N. of Corona; 900 feet NE. of A. T. & S. F. Ry., 750 feet NW. of Corta St., N. of Temescal Wash, W. of Powder Hill. Method of treatment: Imhoff tank, sprinkling filters and sand beds. Lab. No. 1638 was sampled from sewage before entering filter beds and Lab. No. 1639 was from settled sewage. Effluent discharged into gravel beds on N. side of Temescal Creek Wash. Discharge estimated by City Engineer on the basis that the quantity of sewage equals the municipal water consumption.	R15921	0.8	1638 1639	12/30/32 12/30/32	Noon Noon	102 123	0.80 1.31	21 59	302 543	67 75	95 65	18 0	108 54	13 12	40 89
R16982-J-25	City of Riverside Sewage Disposal Farm, W. of Riverside; 4,200 feet east along Sewer Farm Road, which is $1\frac{1}{2}$ miles SW. along Riverside Drive from Mission Blvd. Method of treatment: Settling in earthen basins and land disposal. Used for irrigation on sewer farms and surplus disposed of on the land. Discharge estimated by City Engineer.	R16982	3.6	1719	2/ 3/33	4:00 p.m.	88.2	2.80	56	378	77	23	0	26	60	111
R18002-H-27	City of San Bernardino Sewage Treatment Plant, S. of San Bernardino; 925 feet W. of E. St., 2,400 feet N. of Colton Ave. Sampled at effluent weir on final settling tank. Method of treatment: Pre-chlorination, Imhoff tanks, sprinkling filters and final clarifier. Effluent chlorinated. Discharged into Warm Creek and diverted by Riverside Water Co. canal. Discharge obtained from City Engineer.	R18002	4.7	(e) (e) (e) (d) (e) (e) (e) (e) 658 1840 1716	2/25/29 3/ 6/29 3/4/3/29 1/ 3/30 1/ 4/30 9/30/30 1/ 7/31 1/15/32 3/45 p.m. 2/30 p.m. 2/30 p.m. 2/ 3/33	----- ----- ----- ----- ----- 8:20 a.m. 7:11 7:07 7:16 8:17	64.3 58.7 72.8 66.2 85.6 71.1 70.7 71.6 81.7	0.16 0.09 0.21 0.30 0.15 0.16 0.23 0.33 0.26	47 40 42 40 56 47 47 41 38	262 226 265 100 195 253 256 140 214 241	48 48 64 67 69 101 60 69 73 73	37 36 28 35 49 37 36 36 37	----- ----- ----- ----- ----- ----- ----- ----- 22 14	54 53 56 51 52 54 51 51	8 10 13 12 11 10 13 16	670 653 664 654 604 672 57 61
R18090-G-29	City of Redlands Sewage Disposal Plant, NW. of Redlands; 0.5 mile S. of City Creek Road (3d St.), 700 feet E. of Palm Ave. Sampled from settled sewage. Method of treatment: Imhoff tanks, followed by disposal on sand beds. Effluent discharged into sand beds on N. side of Santa Ana River Wash. Discharge obtained from City Engineer.	R18090	1.2 1.2	1717 1718	2/ 1/33 2/ 3/33	2:30 p.m. 2:00 p.m.	99.7 91.5	4.76 10.64	35 38	418 418	87 64	20 29	0 0	44 40	13 12	17 78

a Includes small equivalent quantity of carbonate ( $\text{CO}_3$ ).

<sup>a</sup> Includes small equivalent quantity of Carbonate (CO<sub>3</sub>).  
<sup>b</sup> Alkaline bases estimated by difference between sum of acid radicals and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.

Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.

Analysis by United States Department of Agriculture, Agricultural Laboratory, Riverside, California.

The Analysis by University of California, Graduate School of Information Engineering and Civic Experimentation and Research Center

## R3894-F-8, LOS ANGELES SEWAGE RECLAMATION PLANT

Owner—City of Los Angeles.

Owner—City of Los Angeles.  
Location and description—In Griffith Park, one mile W. of Riverside Drive Bridge over Los Angeles River, 350 feet S. of W. levee of Los Angeles River, S. of Burbank.

Location and description.—In Grinnell Park, one mile W. of River.

Source of information—R. F. Goudev, Sanitary Engineer, Department of Water and Power, Los Angeles, California.

Location number: R3844.

	Average from May 12, 1930 to Feb. 1, 1933	Averages for		Maximum day	Minimum day
		Maximum month	Minimum month		
Alkalinity as CaCO <sub>3</sub> .....	240	281	133	664	101
Chloride.....	85	162	65	297	46
Sulphate.....	125	163	71	210	53
Nitrates.....	3.0	12.3	0	42.0	0
Calcium (10 analyses) (color).....	36				
Magnesium (10 analyses) (color).....	30	55	11	40	5
Turbidity.....	33	57	3.3	50	5
Suspended solids.....	15	25	0	88	0
Dissolved Oxygen.....	15	25	0	88	0
B. O. D. (5 day).....	25	11.3	2.8	8.8	0.9
Oxygen consumed.....	3.7	11.3	1.1	19.8	0
	10.0	16.9	4.3	25.8	2.1
	7.15	7.5	6.9	7.6	6.6

**Method of treatment:** Preliminary clarification, treatment by activated sludge process, final chlorination, one-third of water filtered and final sand beds.

Remarks: The plant has a capacity of 200,000 g.p.d. and the effluent is disposed of in spreading beds of natural sand adjacent to the station tank #2.

The above table gives the result of some 25,000 analyses, all of which are of samples collected above one of CLEAR's drain filtration canisters.



TABLE 24. INDUSTRIAL WASTE WATERS—SOUTH COASTAL BASIN

Number	Location and description	Location number	Elevation of ground	Discharge in second-foot	Laboratory number	Date	Specific conductivity (K x 10 at 25 C.)	Boron ppm	Per cent sodium (Na x 100 Ca + Mg + Na)	Constituents (parts per million)							
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	
W835-M-9	Union Oil Co. of California. Waste water outlet, N. of Wilmington. Sampled from outlet discharging into Nigger Slough, 1.02 miles N. of Carson St., 0.21 mile W. of Avalon Blvd., 100 feet N. of W-835A-M-9. Waste water from oil refinery.	W835	10		( <sup>1</sup> ) ( <sup>1</sup> )	3 5 32 9/13/32			60	148	9,680 13,440	58 90			296	147	5,768
W835A-M-9	Shell Oil Co. of California. Waste water outlet, N. of Wilmington. Sampled from outlet discharging into Nigger Slough, 1.0 mile N. of Carson St., 0.20 mile W. of Avalon Blvd., 100 feet S. of W835-M-9. Waste water from oil refinery.	W835A	10		( <sup>1</sup> ) ( <sup>1</sup> )	3 7 5/32 9 14 32			92	24	464 360	807 501			26	12	641
W869-N-10	Shell Oil Co. of California. Waste water flume, N. of Wilmington. Sampled from flume discharging into Nigger Slough, 250 feet N. of Willow St., 250 feet W. of Alameda St., 50 feet W. of P. E. Ry. Waste water from oil refinery.	W869	20		( <sup>1</sup> )	3 7 5/32			90	506	8,330	96			285	139	5,052
W879-N-10	Associated Oil Co. Waste water outlet, N. of Wilmington. Sampled from outlet discharging into Nigger Slough, 0.3 mile E. of Alameda St., 150 feet S. of Willow St. Waste water from oil refinery.	W879	15		( <sup>1</sup> )	4 12 32			66	183	29	2			19	4	658
W942-L-10	Redfield Oil Co. Waste water outlet, S.E. of Compton. Sampled from 10-inch pipe discharging into the E. side of the Los Angeles River, 60 feet S. of Artesia St. Waste water from oil refinery.	W942	55		( <sup>1</sup> ) ( <sup>1</sup> ) ( <sup>1</sup> ) ( <sup>1</sup> )	1 20 32 3 11 32 3 23 32 9 7 1/32			82 73 84	156 188 162	440 162 380 170	195 82 41 28			51 40 27	16 6 3	360 157 380
W1353-J-7	Pan California Oil Co. Robert Bromberg, Receiver, Inglewood; 165 feet S. of Regent Street, 453 feet W. of Prairie St. Oil well waste water.	W1353	150		1295	8 30 32	5,330	51.2		554	19,347						
W1364-J-8	Wilshire Annex Oil Co. storage tank, Inglewood. Sampled from bleeder on storage tank for oil well waste water, 905 feet S. of Manchester St., 1,665 feet W. of 12th Ave.	W1364	190		1296	8 30 32	5,125	60.0		637	18,105						
W1514-J-10	Los Angeles Chemical Co. Waste water outlet, Southgate. Sampled from outlet discharging into gully along U. P. R. R. at SW. corner of Salt Lake and Cecelia Aves. Waste water from plant.	W1514	122		( <sup>1</sup> )	6 20 32					350	244					
W1514A-J-10	A. R. Maas Chemical Co. Waste water outlet, Southgate. Sampled from outlet discharging into gully along U. P. R. R. at SW. corner of Salt Lake and Ardine Aves. Waste water from plant.	W1514A	117		( <sup>1</sup> )	6 20 32					150	10					
W1524-J-11	Rio Grande Oil Co. Waste water outlet, E. of Southgate. Sampled from outlet discharging into the E. side of the Los Angeles River, 600 feet S. of the S. P. R. R. Waste water from oil refinery.	W1524	102		( <sup>1</sup> )	10 26 32			43	225	40	34			44	12	655
W1639-K-13	George F. Getty Co. Waste water sump, SE. of Santa Fe Springs. Sampled from sump hole at intersection of Lakeland Road and A. T. & S. F. Ry. main line. Oil well waste water from Santa Fe Springs oil field.	W1639	155		1345	9 7 5/32	942	9.40	94	369	2,929	32			55	26	1,893
W1829-L-16	The Petroleum Co. Dehydrator, S.E. of Brea. Sampled from bleeder on dehydrator, 500 feet S. of Golden Ave., 1,640 feet W. of Brea Vista St. Waste water from all producing oil wells on owner's field.	W1829	300		1293	9 7 1/32	1,838	8.96		2,338	5,103						
W1857-K-17	Crescent Canfield Midway Oil Co. Gathering Tank, Glenda. Sampled from bleeder from gathering tank, 1,500 feet W. and 200 feet N. of E 1/4 corner, Sec. 8, T. 3 S., R. 9 W., S. B. & M. 300 feet N. of Carbon Canyon Road. Waste water from all producing oil wells on owner's field.	W1857	520		1292	9 7 1/32	1,786	16.2		543	5,317						
W2778-I-10	General Petroleum Corp. of California. Waste water outlet, Vernon. Sampled from five 3-inch to 8-inch drains discharging into the W. side of the Los Angeles River W. of Soto St. bridge. Waste water from plant.	W2778	295		( <sup>1</sup> ) ( <sup>1</sup> )	6 15 32 12 17 32			93 83	1,532 618	105 88	3 48			29 24	7 14	600 260
W2778A-I-10	Atchison, Topeka & Santa Fe Ry. Waste water outlet, Los Angeles. Sampled from 6-inch pipe discharging into the W. side of the Los Angeles River, 100 feet N. of U. P. R., 350 feet N. of Washington (23d) St. Waste water.	W2778A	229		( <sup>1</sup> ) ( <sup>1</sup> )	6 15 32 12 17 32			97 96	215 142	234 270	378 327			7 8	2 3	345 373







TABLE 25. PACIFIC OCEAN WATER ANALYSIS

Laboratory number	Date	Specific electrical conductance (K x 10 <sup>4</sup> at 25° C)	Boron ppm	Per cent sodium Na x 100 $\frac{\text{Ca} + \text{Mg}}{\text{Ca} + \text{Mg} + \text{Na}}$	Constituents (parts per million)						
					Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
44	6/13/31	5,002.6	—	70	143	10,614	2,568	0	414	1,259	10,773
(*)	9/ 3/30	—	—	78	241	18,550	2,655	—	410	1,269	10,313
(*)	April 1928	—	—	78	132	10,904	2,755	—	433	1,351	11,047
(*)	6/26/31	—	4.52	78	155	18,824	2,657	—	471	1,256	10,618
(*)	1/ 1/20	5,040	1.85	82	134	18,852	2,353	—	428	1,027	10,964
(*)	1/17/20	—	1.92	—	159	—	—	—	—	—	—
(*)	3 11/20	—	2.83	—	—	—	—	—	—	—	—
(*)	3/16/20	—	2.76	—	—	—	—	—	—	—	—
(*)	3/28/20	—	1.31	—	—	—	—	—	—	—	—
(*)	4/ 2/20	—	3.60	—	—	—	—	—	—	—	—
(*)	5/ 7/20	—	2.23	79	146	19,174	2,659	—	433	1,265	10,870
(*)	5/18/20	—	3.36	—	—	—	—	—	—	—	—
(*)	6/ 4/20	—	3.44	70	143	10,001	2,003	—	429	1,140	10,784
(*)	6/11/20	—	3.43	70	152	18,784	2,582	—	430	1,248	10,615
(*)	7/ 2/20	—	4.34	70	146	19,139	2,637	—	432	1,249	10,860
(*)	7/30/20	—	4.30	70	155	10,078	2,027	—	429	1,266	10,798
(*)	8/27/20	—	4.04	70	152	18,313	2,456	—	425	1,223	10,319
(*)	6/14/30	—	3.73	70	146	18,929	2,650	—	444	1,263	10,697
(*)	2/10/30	—	3.80	79	149	19,005	2,602	—	432	1,253	10,706

<sup>a</sup> Includes small equivalent quantity of Carbonate (CO<sub>3</sub>).  
Alkaline bases estimated by difference between sum of acid radicals and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.

Analysis by City of Long Beach, Engineering Laboratory.

Analysis by City of Long Beach, Engineering Laboratory  
and Analysis by S. R. Mitchell, Consulting Chemist, Los Angeles

\* Analysis by United States Department of Agriculture, Rubidón.



TABLE 26. SPRINGS, LAKES, AND SUBSOIL WATERS ABOVE LOWER CANYON OF THE SANTA ANA RIVER

Number	Location and description.	Location number	Elevation of ground	Discharge in second-foot	Laboratory number	Date	Specific electrical conductance (K x 10 at 25°C)	Boron ppm	Per cent sodium (Na x 100 Ca + Mg + Na)	Constituents (parts per million)							
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	
SPRINGS AND LAKES																	
S13852-Q-26	Lake Elsinore. Elsinore. Sampled from NE. side of lake at Aloha Beach Club pier. Natural lake.	S13852	1,245		(d)	8/23/28	342	3.0	94	439	721	148		39	(e)	1,659	
					(d)	11/4/28	354	1.44	99	555	612	172		2	(e)	1,686	
					(d)	9/13/31	661	2.73	96	1,315	1,456	258	0	11	27	1,499	
					(d)	11/14/31	697	2.71	97	1,412	1,526	276	0	2	25	1,004	
					(d)	4/3/32	540	2.03	95	1,159	1,172	206	0	13	25	1,233	
S16124-M-26	R. H. Raphael Realty Co., Mockingbird Spring. S. of Arlington; 550 feet E. and 1,770 feet S. of N. 1/4 corner of Sec. 2, T.4 S., R.5 W., S. B. & M. In upper end of Mockingbird Canyon. Use: Irrigation.	S16124	1,410		(e)	8/15/16				421	168		21				
					757	3, 6 32	78.5	0.15	49	229	115	37	0	45	22	89	
S16136-M-26	A. D. Randall, spring. S. of Riverside; 660 feet W. of S.E. corner and on S. line of Sec. 11, T.4 S., R.5 W., S. B. & M. In Cajalco Canyon. Use: Domestic and irrigation.	S16136	1,550		(e)	Aug., 1930			22	207	60	41		60	20	130	
S16138-N-26	Henry J. Smith, Gavilan Spring. S. of Riverside. On S. line and 600 feet E. of the SW. corner of Sec. 13, T.4 S., R.5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation.	S16138	1,900		(e)	2/21/30				410	225						
S16147-M-26	Henry J. Smith, Arlington Tunnel. S. of Riverside; tunnel 2,600 feet long, 7' x 7' opening and practically in solid rock. First 150 feet from mouth is timbered. General direction S. 1,000 feet, then SE. Caved in at 1,800 feet. Mouth is 700 feet W. and 200 feet S. of the center of Sec. 13, T.4 S., R.5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation.	S16147	1,600		(e)	12/23/19			39	366	135	38	4	80	30	196	
					(e)	2/21/30				387	166						
					(d)	4/3/33	114	0.18	29	366	160	84	Tr.	104	45	75	
S16156A-M-27	Spring, S. of Riverside. Sampled from seepage on S. bank of Cajalco Creek, 900 feet S. of the center of Sec. 7, T.4 S., R.4 W., S. B. & M. In Cajalco Canyon.	S16156A	1,545		(d)	4/3/33	403	0.17	51	421	914	426	1	214	117	493	
S16157-M-27	Spring, S. of Riverside. Sampled from spring on Mosgrove and Winsor property in SW 1/4 of NW 1/4, Sec. 18, T.4 S., R.4 W., S. B. & M. In Cajalco Canyon.	S16157	1,600		(d)	4/3/33	33.6	0.09	46	137	34	12	1	26	10	35	
S16178-M-27	Spring, S. of Riverside. Sampled from one of several springs, on E. side of Cajalco Canyon, S. of Winsor and Mosgrove Ranch house, about middle of S. line of SW 1/4, Sec. 17, T.4 S., R.4 W., S. B. & M.	S16178	1,900		(d)	4/3/33	63.5	0.14	22	274	52	38	1	82	18	32	
S16837-K-22	Lake Norco. SW. of Norco. Sampled at S. end of lake. Bailey No. 3712A.	S16827	640		(f)	11/24/31	83		62	149	135	51		33	17	197	
S16934-J-24	W. J. Hole, reservoir. N. of Arlington; 800 feet W. of Pedley Road, on S. side of Jurupa Ave., extended. Stored water for irrigation.	S16934	720		(e)	1/19/20			52	292	226	90	2	89	23	1,155	
S16983-J-25	Water Cress Spring. Riverside. On Santa Ana River, S. bank, at N. projection of Streeter Ave.	S16983	720		899	4/7/32	86.6	0.17	39	278	105	32	14	82	16	81	
S17054-J-27	C. W. Benedict, spring. S. of Riverside. On E. side of and near bottom of Tequesquite Arroyo, 0.4 mile NE. of Woodcrest Road, 200 feet NW. of Benedict Ave. Use: Domestic.	S17054	960		938	5/14/32	116	0.18	25	204	211	78	39	97	52	69	
S17093-J-27	J. F. Pearce, mountain spring. E. of Riverside; in NE 1/4 of NW 1/4 of SE 1/4 of Sec. 28, T.2 S., R.4 W., S. B. & M. Use: Irrigation.	S17093	1,700		(e)	Feb., 1929				107	50						
S17094-J-27	Spring on bottom of canyon SE. of Riverside, 0.75 mile N. of A. T. & S. F. Ry. crossing on Perris Highway near Box Springs, and 100 feet W. of R. R. tracks. Use: Domestic.	S17094	1,460		933	5/12/32	47.4	0.08	44	82	75	12	18	26	15	46	
S18821-E-28	Arrowhead Springs Hotel, Arrowhead steam caves. Arrowhead Springs. In Waterman Canyon, 600 feet E. of Arrowhead Highway, 1,100 feet N. of road to hotel, or 500 feet W. and 900 feet N. of center of Sec. 11, T.1 N., R.4 W., S. B. & M. Use: Steam baths. Discharge estimated by U. S. D. A. at time of sampling.	S18821	1,900	0.02	(d)	3/12/30	125	2.06	79	104	51	419		39	6	1,215	
					213	8/12/31	163.3	2.94	86	88	84	545	1	32	7	303	
S18830-E-28	Arrowhead Springs Hotel, Palm Spring. Arrowhead Springs; 510 feet N. and 480 feet E. of the W 1/4 corner, Sec. 12, T.1 N., R.4 W., S. B. & M. NE. of hotel. Spring formerly natural, now hole bored to 115 feet, with no casing below 13 feet, to increase supply. Discharge estimated by U. S. D. A. at time of sampling.	S18830	2,050	0.07	(d)	3/12/30	140	2.35	85	92	66	452		35	2	1,249	



TABLE 26. SPRINGS, LAKES, AND SUBSOIL WATERS ABOVE LOWER CANYON OF THE SANTA ANA RIVER—Continued

Number	Location and description	Location number	Elevation of ground	Discharge in second-foot	Laboratory number	Date	Specific electrical conductance (K x 10 <sup>3</sup> at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)							
										Bicarbonate radicle (HCO <sub>3</sub> )	Chloride radicle (Cl)	Sulfate radicle (SO <sub>4</sub> )	Nitrate radicle (NO <sub>3</sub> )	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	
SPRINGS AND LAKES—Continued																	
S18831A-E-28	Arrowhead Springs Hotel, Perryval Spring. Arrowhead Springs; 420 feet N. and 680 feet W. of the E <sub>1/4</sub> corner, Sec. 11, T.1 N., R.4 W., S. B. B. & M. NW. of hotel. Discharge estimated by U. S. D. A. at time of sampling.	S18831A	1,950	0.02	(4)	3/12/30	149	2.64	87	82	73	492	-----	29	4	4272	
S18831B-E-28	Arrowhead Springs Hotel, Granite Spring. Arrowhead Springs; 140 feet N. and 1,050 feet W. of the E <sub>1/4</sub> corner, Sec. 11, T.1 N., R.4 W., S. B. B. & M. NW. of hotel. Discharge estimated by U. S. D. A. at time of sampling.	S18831	1,900	0.06	(4)	3/12/30	152	2.64	88	79	69	498	-----	26	4	4276	
S18842-E-28	Lady Margaret Sharp, Warm Spring. NE. of San Bernardino; 1,700 feet N. of 40th St. (Willow Nook Road), 600 feet W. of Mountain Ave., extended, 100 feet N. of swimming pool at Lady Sharp's house. Use: Swimming pool and irrigation. Water rises in bottom and sides of 6-foot deep hole.	S18842	1,560	-----	1424	9/22/32	36.0	0.44	60	125	16	37	1	21	5	51	
S19027-G-32	Bath Tub Spring. NE. of Redlands. N. of mouth of Warm Spring Canyon on E. side of Santa Ana River, near San Bernardino Baseline. Spring flows 0.1 miners inch at temperature of 60° C.	S19027	2,200	-----	(4)	4/12/31	123	0.42	78	43	11	542	-----	54	0	4221	
S19416-C-23	Miller Hot Spring. NW. of San Bernardino. In picnic ground N. of Lytle Creek Road, 500 feet above caretaker's house at Southern California Edison Co., Ltd., intake. Use: Domestic. Casing: 30-inch concrete well.	S19416	2,850	-----	(4)	9/24/32	53.1	0.80	87	98	28	87	0	8	2	484	
S19421-C-24	Flying W. Spring. W. of Cozy Dell; 200 feet S. of Lone Pine Canyon Road on San Andreas Fault, or 200 feet S. and 2,600 feet W. of the NE. corner, Sec. 11, T.2 N., R.6 W., S. B. B. & M. Discharge from W. P. Rowe.	S19421	2,950	0.02	(4)	11/19/32	99.2	0.08	15	430	17	214	Tr.	121	50	442	
S19432-C-24	Lost Lake, near Keenbrook. Sampled at W. landing on N. side of lake on center section line, 1,450 feet E. of W <sub>1/4</sub> corner, Sec. 12, T.2 N., R.6 W., S. B. B. & M. Elevation of water surface 2,760.4. Lake is formed by movement of water along San Andreas fault.	S19432	2,760	-----	(4)	10/19/32	94.1	0.11	10	357	12	239	Tr.	125	46	425	
S19952-D-34	Big Bear Lake. NE. of San Bernardino. Sampled near lower end of lake. Gage read 45 at time of sampling. Stored water for irrigation.	S19952	6,710	-----	(4)	3/28/31	24.5	0.01	12	137	Tr.	10	-----	26	11	47	
SUBSOIL WATERS																	
S15081-L-23	W. J. Hole, Arlington drain outlet. SW. of Arlington. Sampled at outlet of 24-inch concrete pipe, 100 feet N. of A. T. & S. F. Ry., 1 mile W. of Buchanan St. Use: Irrigation. Drains subsoil waters from vicinity of Arlington W. of Van Buren St.	S15081	670	-----	1213 1301 1449 1498 1557 1630 1748	7/28/32 9/1/32 10/4/32 10/31/32 12/3/32 1/3/33 2/7/33	127 137 108 174 175 147 158	0.24 0.26 0.22 0.26 0.37 0.27 0.30	47 48 39 47 46 46 -----	308 317 262 329 348 329 327	192 224 151 305 311 247 273	97 91 83 119 311 108 -----	23 14 13 18 ----- 22 -----	83 84 84 108 ----- 96 -----	32 41 30 50 ----- 42 -----	138 160 99 191 ----- 162 -----	
S16000-L-24	Tile drain standpipe. SW. of Arlington; 0.25 mile SW. of Pierce St., 785 feet NW. of Magnolia Ave. Standpipe is 45 feet S. of Twin Buttes Water Co. Plant 1. Use: Irrigation. Bailey No. 3622F.	S16000	690	-----	(4) (4) (4) (4)	8/5/28 9/20/31 10/2/31 11/30/31	----- 234 167 160	----- ----- ----- -----	41 43 44 41	281 344 314 296	295 419 266 272	103 158 120 100	----- ----- ----- -----	109 126 102 100	41 66 41 45	4142 4206 4154 4138	
S16425-K-22	Fuller Ranch, drainage ditch. W. of Norco. Sampled 0.2 mile E. of Harrison Ave., extended, 600 feet S. of Chandler St. Drainage flows into Santa Ana River.	S16425	540	-----	1788	2/23/33	64.5	0.02	25	302	38	29	5	75	18	41	
S16908-K-24	Southern California Junior College, drain. NW. of Arlington. Sampled at Schuyler Ave., 400 feet northeasterly from Kasei-Park Ave.	S16908	-----	-----	(6)	Dec., 1930	-----	-----	-----	340	740	-----	-----	-----	-----	-----	
S16969-K-25	Orchard surface drainage. S. of Arlington; 600 feet NW. of Victoria Ave., 10 feet SW. of Gibson Street. Sample from discharge of 1.5-inch drain pipe.	S16969	880	-----	1696	1/30/33	21.3	0.12	24	64	16	11	Tr.	11	6	8	

\* Includes small equivalent quantity of Carbonate (CO<sub>3</sub>).

b Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.

c Calcium and Magnesium determined together and calculated to equivalent quantity of Calcium.

d Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.

e Analysis by University of California, Graduate School of Tropical Agriculture and Citrus Experiment Station, Riverside, California.

f Analysis by Edward S. Balch and Sons, Riverside, California. Data from Case No. 22946 (Corona Footfall Lemon Co., a Corp., vs. C. E. Lullbricke, et al.), in the Superior Court of the State of California, in and for the County of Riverside.





















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